THURSDAY, AUGUST 1, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE.

RHINOSCOPY AND DISEASES OF THE PHARYNX.

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GENTLEMEN,—I propose to occupy your time to-day with some remarks upon the pharynx, and the method of examining this cavity, as well as of treating its diseases.

Pharyngeal therapeutics have undergone complete revision since the introduction of the mirror as an aid to diagnosis. You have heard a great deal about the laryngoscope, and what is due to it as an aid to laryngeal medicine; but of the rhinoscope comparatively little has been said, and that little, if I may judge from my knowledge of the books at your command, is presented in such a sketchy and unsatisfactory manner as to mislead, if it have any influence at all. Rhinoscopy is therein represented as an easy manipulation; but I can assure you that it may often prove in your hands one of great difficulty. In your readings of diseases of the pharynx you have no reason to believe that they present peculiarities; whereas, in truth, they fairly bristle with points of unusual bearing, and respond capriciously to treatment.

It is a great satisfaction to know that, in spite of these facts, we have no reason to be discouraged. The difficulties of rhinoscopy, in the majority of cases, can be overcome; while the morbid peculiarities of the region are in entire subordination to well-known principles.

Permit me to allude for a moment to the latter; for I think they have not been sufficiently recognized.

The pharynx is a chamber devoted to the performance of two distinct functions. While a part of the alimentary canal, it yet receives the respiratory tract; gastric as well as pneumonic crases may create symptoms referable to it. The nasal and oral chambers both communicate with the pharynx: the former is the ordinary passage for the air in respiration, the latter for food. Now, a special muscular apparatus—half valve-like, half sphincter-like, in its action—is so arranged that the base of the valve secures a fixed point from the posterior edge of the hard palate, and is held taut, as sailors say, from below and behind by two obliquely-placed muscular bands (the palato-pharyngeal muscles), which are inserted in great part in the posterior wall of the pharynx. At the same time, two additional bands (the levator palati muscles) are known to pass upwards and backwards divergently from the upper surface of the valve, to secure a fixed point from the temporal bone. This apparatus is capable of cutting off the naso-pharynx from the oro-pharynx, first by the elevation of the valve (by the latter muscles), and secondly by the advance and constriction of the pharynx (by the former). Every such act leaves no portion of the pharynx, excepting its roof, unexcited. It is repeated in every act of swallowing, gagging, coughing, hawking, etc. In ordinary breathing the soft palate moves gently to and fro. Deglutition is by no means confined to eating. A person in health will, every few moments, unconsciously to himself, swallow the saliva which is unceasingly passing into the mouth. We see at once from the physiological relations of the parts, therefore, how difficult it is—if it be not impossible—to give the parts *rest*. We all know the great importance placed upon rest as an element of surgical treatment. Suppose a morsel of food lodges in the pharynx. Immediately a spasm occurs, and the offending body is ejected. But suppose again that this foreign body is not a portion of food, but a globule of tenacious mucus, sliding down the soft palate from the nose, as is often the case in ozæna, or —what is quite as frequently seen—a plug of mucus hanging from the fossa behind the orifice of the Eustachian tube, and constantly exciting the pharynx to fruitless efforts to dislodge it; we recognize in these agents not only the indications for their removal, but satisfactory reasons why, if any such local cause persists, no matter how insignificant it be, it may serve as an element of unrest to the entire region.

But we have yet another cause for persistent unrest of the pharynx in disease, viz., that through agency of the nerves. It is a received principle in pathology that an irritant, applied to any filament within the distribution of a given nerve, may excite inflammation at any or all parts of the region supplied by such nerve. Thus, a diseased tooth of the left side may excite an ophthalmia of the same side, since both organs are supplied by the same nerve of general sensibility. So in the pharynx we may have a constant teasing of the parts kept up, and a pharyngitis established, from a diseased state of the nasal mucous membrane; the nerves in question being the palatine branches of the ganglion of Meckel, which are distributed to the nose, palate, and lateral wall of the pharynx. We cannot meet such cases by the method elsewhere adopted for troubles excited by over-action of a sphincter, and "silence" them with the knife. We must temporize with them as best we may; and, in the first place, a thorough examination of the entire pharynx, from the epiglottis to the roof of the organ, is necessary.

You have, I will say, a case of pharyngeal trouble, the prominent symptoms of which are dryness of the throat, and a tendency to clear it frequently, conjoined with a sense of constriction after moderate exertion in speaking. By the best possible light, one can see nothing of the pharynx but that portion of the posterior wall between the palato-pharyngeal folds. This view may tell a great deal, or it may tell nothing. The follicles may be engorged, the orifices thereof appearing as lentil-shaped swellings; or the surface of the mucous membrane may be dry, glistening, or moist. Do not be satisfied with such an examination, but at once use the rhinoscope. We have said that rhinoscopy is a difficult manipulation. It is so because the mirror becomes that foreign body above mentioned which it is the instinct of the pharynx to eject. You may say that this is equally true of the laryngoscope. Not so; for in laryngoscopy the instrument is inserted during a pharyngeal spasm. This is an accident in rhinoscopy.

To these at-all-times-present obstacles is joined the coincidence that it is the diseased and therefore irritable pharynx which it is desired to examine,—one which exaggerates the above difficulty, and one which oftentimes presents a contraction of the space between the palato-pharyngeal folds, and permanent approximation of the soft palate towards the posterior wall of the pharynx. This condition may, indeed, make the examination impracticable. Very many times I have been frustrated in my attempts to examine a naso-pharyngeal space, when from the rational signs I had reason to expect some interesting local change. In a certain percentage of chronic cases, where from long-standing disease the parts have become rigid and the calibre of the part contracted, and in another class, namely, acute syphilitic pharyngitis accompanied, as is the rule, with submucous œdema, thus diminishing the working space, rhinoscopy is impracticable. Excluding these, we may affirm that a satisfactory examination is possible

if forbearance on the part of the operator, and a desire to be relieved on the part of the patient, be conceded.

A wide and capacious pharynx will permit a complete examination at the first sitting; but such convenient pharynges are, unfortunately, rarely met with. The average pharynx is not so accommodating: it demands a systematic course of training; an apparatus only partially under the control of the will is to be entirely so controlled; an irritable surface is to be made tractable. The first we can accomplish only through the assistance of the patient; the second can be overcome by medication. Should the patient naturally have a strong will, a small pharynx may prove the better one, compared with a larger organ in the person of a hysterical or indifferent patient. I have in this last regard been much disappointed in my attempts to examine the pharynges of the inmates of the house. As you know, the vast majority of these are human trash of one kind or other, who have drifted into a poor-house hospital from mere lack of those very qualities that make a strong effort of the will to control a half-involuntary muscular act difficult, if not impossible. The result is, in attempting an examination of a person of this class, the continual gagging, retching, and tumultuous pharyngeal orgasm are apt to react so disastrously upon that other element of success in the manipulation, namely, the patience of the operator, that he will give up the effort in despair.

I have noticed, also, that it is very difficult to examine the pharynx of a negro. This appears to be due to the fact that the tongue in persons of this race is of proportionately large size, with increased sensibility towards its base. It is correspondingly difficult to control. The pharynx of edentulous persons is also examined with difficulty; contraction of the pharynx following the most careful use of the tongue-depressor.

The manner in which I have conducted my examinations has been as follows. The position of the patient is similar to that for laryngoscopy: the head is thrown back, and the strongest reflected light which can be secured from a concave mirror is directed upon that part of the naso-pharyngeal aperture into which it is proposed to reflect the image. We will say we desire to examine the right side of the upper part of the pharynx. The light is focussed upon the *left* half of the aperture, and illuminates the corresponding half of the posterior wall of the pharynx. The tongue-depressor is now introduced by the left hand, and the tongue gently but firmly depressed, while the mirror, which has been warmed, is passed into the mouth and guided by the depressor back into the pharynx between the uvula and the left palato-pharyngeal fold. The elbow of the shaft of the mirror should not at any time be permitted to leave the tongue-depressor. Nor should the slightest touch with any part of the pharynx or soft palate be permitted. The uvula should be dodged, and all attempts to draw it forward by hooks and snoods avoided. As a rule, active resistance to interference is the only response, no matter how often the experiment may be repeated. Any parts permitting the uvula to be touched by an instrument without causing elevation of the palate and consequent occlusion of the naso-pharyngeal aperture can be so educated as to render such accessories unnecessary. It is in the act of introducing the mirror to the position indicated that the chief difficulty exists. Having secured this vantage, the rest is easy. Now carry the mirror obliquely as far as possible over to the left, and then gently depress and elevate the handle. By this means a vertical view of the *right* side of the lateral wall of the space above the palate can be secured. This includes the palato-salpingal fold covering the levator palati muscle, the Eustachian fossa, and the fossa of Rosenmüller. Next rock the mirror by a to-and-fro action of the handle. A transverse view of the space can be secured at the left of the posterior naris, with its contained images, the septum narium, and possibly a portion or all of the right naris; the junction of the vomerine septum to the roof of the pharynx, and the posterior edge of the soft palate, with the uvula, may be seen. For the examination of the left side the process must be reversed. The tongue-depressor must be held in the right hand,—the mirror in the left,—and carried well over to the *right* side of the aperture. If, after repeated trials,—let me say six or eight,—the throat proves captious, it is better, in my judgment, to dismiss the patient for the day, ordering a gargle of chlorate of potassa or bromide of potassium to be used freely until the next sitting, at which time you may be surprised to find that the former difficulties have vanished, and that you are able to make a satisfactory examination. I have occasionally, however, been compelled to ask of my patient two or three sittings before I could give an opinion as to the condition of the parts.

Let us suppose the examination is successful. What are the conditions to be observed, and what are their relations to pharyngeal disease? I would have you remember the order in which I named the noteworthy objects therein contained. The palato-salpingal fold may be thickened, and tend to narrow the lower margin of the orifice of the Eustachian tube. The Eustachian fossa may be patulous, plugged with mucus, or closed. If the latter, the palato-salpingal fold may be suspected as an auxiliary; or, as is more commonly the case, the hook-cartilage of the tube is reddened and thickened, while the fossa of Rosenmüller is occupied with a plug of tenacious mucus. The superior and middle turbinated bones are of a pale slate-gray color. Unless the patient be unusually well trained, only the upper portion of the inferior turbinated becomes visible. The septum narium is of a brighter color than the turbinates. A swelling of the mucous membrane covering its sides becomes oftentimes a very noticeable feature, and is alone capable of preventing proper passage of air through the nasal chamber of the side within which it is found. The roof of the pharynx may be thrown into transverse folds, which, if well marked, give a flesh-colored cushiony appearance to this part, very unlike the rest of the general surface. This ends abruptly at the base of the septum narium. The contrast in appearance between the septum narium and the roof of the pharynx is very striking. This part may be found thickened, and bleeding readily,—a condition which has been described as adenoid disease by Meyer of Copenhagen. In one of the worst cases of spermatorrhœa that has come under my notice, the upper third at least of the space was occupied by tassel-like growths, which bled readily.

I have notes of a remarkable case of occlusion of both posterior nares from what appeared to be a growth of membrane descending from the roof of the pharynx. An unmarried female, aged 23, a cook, noticed difficulty in clearing her nose, five years before coming under my notice. She had difficulty of hearing in the left ear eighteen months before. Both posterior nares were closed, excepting a small opening the diameter of a small darning-needle on the palatal curve of the right posterior naris. A Eustachian catheter passed into the nose could not be made to rupture this curious membrane. The case also exhibited chronic inflammation of the pharynx and larynx.

Ulcerations of any kind I have never seen. My experience appears to be exceptional in this regard. Mackenzie, Semeleder, and others mention them. I have had reason in chronic syphilitic angina to suspect the existence of ulceration in the naso-pharyngeal space, but, for the reasons already given, have failed to complete an examination.

In the great majority of cases, pharyngeal disease,

when originating above the palate, is located in the group of closed glands analogous to the tonsillar gland, which is lodged behind the Eustachian tube in the fossa of Rosenmüller.

When we remember how frequently the tonsil becomes enlarged from repeated attacks of inflammation, we are prepared to learn that this glandular mass frequently becomes the seat of disease. From its peculiarly isolated condition,—being removed from the grasp of the constricting act of the pharynx,—it, while serving to excite increased activity of the glands within and around, is unable under diseased conditions to remove its own thickened secretion. The individual is constantly fretted with a desire to rid himself of some irritating substance above his palate. To use his own expression, he is continually hawking, and the pharynx is "dry, dry, dry!"

In a number of these cases I have traced a history of diphtheria. One gentleman, who had had this affection eight years, attributed it to an attack of that disease. It would be worth while to remember the possible association of these troubles.

That the posterior edge of the soft palate is oftentimes the seat of syphilitic ulcerations is well known; and their prevalency should never be forgotten in cases of angina. The continued excitation of the posterior wall of the pharynx by such an ulcer may, and often does, spread the disease, and tend to contract the communication with the nose.

In a lingering acute naso-pharyngeal catarrh the membrane is of a dark flesh tint, bathed with a copious secretion. The Rosenmüllerian fossa is not apt to be filled with mucus. The capital of the internarial column is marked by a deltoid patch of submembranous œdema, the apex of the figure being adjacent to the thickened membrane at the roof of the pharynx.

It is a noteworthy fact that profound morbid changes may take place in the general lining of the pharynx without involving the interior of the Eustachian fossa. The delicate lightish-yellow hue of the anterior surface of the hook-cartilage met with in the orifice of the fossa is very generally present. Occasionally it may be traversed by a minute vein.

The points to be observed in examining the fossa are, first, to what extent, if any, the cartilage is pushed forward, thickened, or otherwise changed. Engorgement of the pharyngeal tonsil may accomplish the first of these, or a chondritis may in itself tend to occlude the opening. Second, the relative size of the whitish spot. It may be large, with the lower margin of the orifice contracted downward,—when no thickening of the side of the pharynx is present,—or it may be small, and depressed within a cushiony vestibule formed by the surrounding infiltration.

Yet another feature of the upper region of the pharynx deserves more than a word in passing: namely, the varieties of mucous membrane found there. No division of the alimentary tract can boast of so many. We have mucous membrane in contact with a periosteum (muco-periosteum), as on the nasal septum; we have the membrane conjoined with a perichondrium (muco-perichondrium), as in that covering the hook-cartilage; we have the membrane covering the aponeurotic tissue at the roof and the side of the pharynx. These relations have a tendency to make acute inflammations of such membranes pass into chronic forms. Thus a coryza may become a chronic catarrh; and we have the lesion of that disease so modified by its locality as to be liable to excite an ostitis of the septum and the turbinates, or perichondritis of the tube.

Treatment.—I will not detain you long with remarks upon this branch of the subject. After the cause of the condition has been ascertained, the plan of the treatment is at once apparent, and presents comparatively few points of interest not already in your possession. The remedies for inflammation of the pharynx do not differ from those employed in other inflammations; and here, as elsewhere, the metallic salts hold their supremacy,—and chief among them the nitrate of silver. I believe that the judicious use of a solution of this article, in strength ranging from twenty to eighty grains to the ounce, will accomplish more than any other agent in chronic pharyngitis with dryness of the parts about the naso-pharyngeal apertures, and in which, more particularly, the rhinoscope has announced the presence of a muco-chondritis of the Eustachian tubes, or the so-called adenoid condition of the roof of the pharynx. In those frequent instances of pharyngeo-tonsillar hypertrophy, with tendency to hawking of mucus, a Eustachian catheter used as a probe may be made to pass from the nose to the affected spot, and the offending secretion scraped away. In some cases I have made an application of the medicated stick, as it is called: namely, a fusion of nitrate of potassa and nitrate of silver. This I accomplished in the following manner. We will say equal parts of the two salts are melted in a test-tube; the twisted tip of a slender wire of aluminium is now dipped into the fused material. Upon withdrawing it, a small quantity of the mass will be seen adhering to it. A Eustachian catheter of broad calibre (I have had an instrument of britannia metal made by Gemrig, of this city, for this purpose: it is shaped like a Eustachian cathether, but is of wider calibre) is now inserted into the nose. The patient being intrusted with the tongue-depressor, the rhinoscope will announce the exact position of the instrument. When it is known that the end of the curve is fairly engaged in the fossa of Rosenmüller, the rhinoscope may be withdrawn and the charged wire passed through the catheter with the disengaged hand, and brought in contact with the affected surface. Or a few drops of a strong solution of silver may be carried along the catheter by a syringe armed with a long nozzle (an ordinary hypodermic syringe, with a nozzle sufficiently long to reach the curve of the catheter, will accomplish the purpose very well), after which the Politzer may be employed in blowing the contained fluid freely into the fossa. In the case of adenoid disease associated with spermatorrhœa, previously alluded to in this lecture, marked benefit followed the application of the medicated stick to the roof of the pharynx when injections from beneath had failed. In my hands this method of reaching the affected parts has proved more satisfactory than the pharyngeal syringe. The instrument is objectionable from the fact that it operates from below. Annoying spasm, too, often interferes with its application. With children, however, and intractable adults, it is a valuable adjunct. Dr. O. D. Pomeroy, of New York, has used extensively, and with satisfactory results, an instrument resembling a Eustachian catheter, but bulkier, to which is attached a Politzer bag and tubing. A few drops of the selected fluid are sucked up by the bag through the terminal orifice of the instrument, and thrown up above the soft palate.

In pharyngitis dependent upon general naso-pharyngitis, no instrument can approach in efficacy the atomizer. The best form of this instrument I am familiar with is that known as the Sasse sprayer. The peculiarity of this instrument consists in a test-tube receiver which is held in the left hand, and a pair of very long barrels, the points of which, when the receiver is near the mouth, are lodged within the axis of the pharynx; the whole being worked by a bulb and tubing held in the right hand.

In specific ulceration of the naso-pharyngeal space, I have obtained good results from the use of a solution of sulphurous acid of one drachm to the ounce, sprayed upward through the naso-pharyngeal aperture; or the

pure acid may be applied to the affected spot if the part thus operated upon lie below the palate.

Where there is abundant mucus, as in lingering acute catarrh, a spray of strong alum-water proves oftentimes efficacious. It is in this class of cases that insufflations of alum are of advantage. The best insufflator with which I am acquainted is a simple glass tube, bent at convenient angles and furnished with a fenestra at about its middle; a light piece of india-rubber tubing attached to one end of the glass tube completes the instrument. The powder to be used —we will say alum—is inserted in the glass tube through the fenestra, which is then covered by a sliding cylinder of rubber. The instrument now being inserted in the pharynx, with the orifice of the tube pointing upward, the opposite end of the instrument is held between the lips of the operator, who quickly blows the powder up into the naso-pharyngeal space. I am indebted to Dr. Bertolet, of Philadelphia, for the instrument I show you.

I must not neglect mentioning the nasal douche as an adjunct to our treatment; more, however, as an aid in *washing* the parts than to medicate the region. Weak solutions of salt, or carbonate of soda, used *tepid*, will meet every indication. The washing need not be repeated oftener than once a day,—say at the time of the morning toilet.

Such is a brief outline of the treatment of the different forms of pharyngitis. I do not wish to paint the subject in too bright colors, by saying that you can overcome all difficulties by the rhinoscope and improved means of medication. But I am sure you will find these methods more satisfactory than the old-time administration of gargles and snuffs; and it is certainly desirable to place pharyngeal medicine on a scientific basis, which with the aid of the rhinoscope is alone practicable.

ORIGINAL COMMUNICATIONS.

CASE OF PUERPERAL ECLAMPSIA TREATED WITH THE NITRITE OF AMYL.

BY WILLIAM F. JENKS, M.D.,

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MRS. X., æt. 36, primapara. At the beginning of the fourth month of gestation, the patient, while sewing, was surprised by an attack of uterine hemorrhage, which lasted with intermissions for a week. The flow was not very profuse, however, and no measures other than rest and the application of cold cloths were taken to arrest it. During the last four months of pregnancy she noticed a gradual dropsical enlargement of her hands and feet, and complained of frequent headaches and flashes of light before her eyes, while her husband noticed a certain dulness of intellect and a hesitancy of expression which were not natural to her. In the absence of Dr. Hooper, I was called to see the patient after midnight (June 13), and found her alarmed at the free escape of water from her. As there was no uterine contraction whatsoever, and as she stated that she had not passed her water for some time, I drew off with the catheter a bowlful of urine, clear in color, almost free from albumen, and presenting nothing abnormal on microscopic examination. The vaginal portion of the cervix was not yet effaced, but the os uteri was soft and dilatable. The escape of water continued, the uterine tumor diminished in size, and labor-pains were soon developed. At ten o'clock in the morning the head had descended well into the pelvis, and the expulsive pains were violent; the woman was exceedingly sluggish in thought and intellect, and her hearing was very much impaired; the pulse was 120, full and tense, and the face suffused. I endeavored to arouse her, and then first noticed the set look, the contracted pupil, the faint twitching of the facial muscles, which were soon followed by a puerperal convulsion lasting three or four minutes, with subsequent loss of consciousness. Several attacks ensued, nor was their development at all influenced by the administration of ether. The delivery of a living child was followed by a return of consciousness, and the placenta was delivered by Credé's manipulation, the uterus contracting powerfully. The convulsions again returned in about half an hour, with increased violence, followed by complete loss of consciousness. After one or two severe convulsions, I administered two or three drops of nitrite of amyl by inhalation when the premonitory twitchings, the contracted pupil, and the convergent strabismus announced the return of a seizure. The effect was magical: the muscles relaxed, the strabismus disappeared, the face flushed, and the patient remained quiet for a longer or shorter time. In this way five or six successive attacks were arrested before development, the amount of the nitrite of amyl necessary being usually only one drop. At this time the uterus became relaxed and boggy to the touch, and contracted only feebly after external manipulation and ice. The hemorrhage was quite free, and again and again large masses of clots were *pressed* out of the uterus. Under these circumstances I injected a weak solution of ferri persulphas (ʒi of the liq. ferri persulph., U.S.P., to a basinful of water), which produced temporary contraction, but not to a satisfactory degree: so I increased the strength of the solution, and the organ remained firm, but larger than normal. Complete consciousness had returned, and the subsequent history of the case presents no especial points of interest. The treatment consisted in the free administration of drastic cathartics and diuretics, beef-tea, and quinia. Slight local tenderness over the abdomen, with increased frequency of pulse, yielded readily to hot fomentations and opium.

I have recorded this case because it presents points of interest both in regard to the pathology of puerperal eclampsia and its treatment. It cannot be classed among these,—the number of which I believe to be small,—when the convulsive seizure is due to the presence of urea or any of its derivatives in the blood, for the urine contained only the slightest amount of albumen. The secretion had been quite free up to the time of the attack, and the microscopic examination did not reveal the presence of any morbid products which could justify the supposition of Bright's disease. We do find, however, evidences of hydræmia and an impoverished state of the blood. The naturally full habit of the woman, the occurrence of unprovoked hemorrhage at the fourth month, the dropsical swelling of the face, arms, and legs, the slight amount of albumen in the urine, the hydrops amnii leading to premature rupture of the membranes, the phenomena having their origin in disordered cerebral action, the full, tense, and labored pulse, all point to increased vascular tension and to a deterioration in the quality of the circulating fluid. The theory of Traube and Rosenstein has already been brought before the readers of this journal,* and I need only briefly recall the sequence of phenomena which result in puerperal eclampsia. First of all, there exists during gestation hydræmia, producing thereby an increased vascular tension, giving rise in some cases to symptoms such as were present in this patient during the latter months of gestation. At the time of labor, the intra-cerebral vascular pressure is increased to such a degree that a serous exudation takes place, producing œdema of the brain-tissue and dropsy of the membranes. As the result of this *extra*-vascular pressure, a condition of secondary anæmia is mechanically brought about. This it is which produces the eclamptic spasm, each one of which bears with it new danger to the patient,—viz., an increase in the amount of the exudation, resulting finally in an œdematous imbibition of the nervous centres, which is fatal. Not only in the brain, but also in the lungs, is this increased vascular

*Review of Fordyce Barker's pamphlet on Bloodletting in Obstetric Medicine, *Medical Times*, May 1, 1871.

tension productive of mischief, for some cases which survive the convulsions die after labor of œdema of the lungs. Hence the diminution of this vascular tension becomes an *indicatio vitalis*. The lancet is the readiest means, but the relief is not always immediate; a certain amount of time is requisite to regulate the new conditions of intra-vascular pressure, and any agent which will rapidly diminish this tension of the vessels will, *a priori*, check the imminent spasm and abort the attack.

This is the first action of the nitrite of amyl, and this property led Dr. S. Weir Mitchell to suggest its use to me in cases of puerperal eclampsia. In this individual case its action in arresting the spasm was immediate and satisfactory. Its use carries with it, I fear, however, a certain amount of danger. It relaxes also the muscular system, and the profuse post-partem hemorrhage I had to deal with after the uterus had once firmly contracted may perhaps have had its origin in the use of this drug. I am the more inclined to think that this explanation has in it something of truth, because I have heretofore found a much weaker solution of the persulphate of iron than is usually employed sufficient to check the hemorrhage, while in this case the muscular contraction which it excited was of so unsatisfactory a character that I was led to increase the strength of the solution.

The small amount of hemorrhage which took place immediately after the expulsion of the placenta seems to have been sufficient to check the development of the convulsive seizures for some time, and to restore the patient to consciousness, but, unfortunately, did not sufficiently diminish the vascular tension to prevent their recurrence.

The cloudiness of intellect which usually remains in these cases for some days after the convulsions have ceased shows that in most cases a certain amount of œdema of the cerebral tissue results. As the effusion is absorbed from the body in general, this cerebral œdema gradually disappears.

ON SOME CASES OF EMPHYSEMA OF THE NECK

DUE TO LESIONS OF THE RESPIRATORY APPARATUS.

BY WILLIAM PEPPER, M.D.

(Continued.)

HAVING already spoken of emphysema of the neck as connected with lesions of the larynx and trachea, it remains to allude to the more rare cases in which it appears in connection with injuries or diseases of the tissues of the lungs. There are two ways in which such lesions may become associated with external emphysema. In the one case the air escapes directly from the lungs into the subcutaneous cellular tissue, while in the other it finds its way from the air-vesicles into either the subpleural or interlobular connective tissue, and thence gradually to the root of the lung, and then ascends by the mediastinum to the neck. Examples of the first variety are occasionally met with in tuberculous disease of the lung when there is close adhesion of the two surfaces of the pleura over the seat of a superficial vomica, in whose walls ulceration advances until finally perforation of the layers of the pleura is effected, and a direct communication is established between the pulmonary cavity and the subcutaneous tissue. These cases are undoubtedly very rare, since it usually happens either that no adhesions have formed over the seat of the perforation of the pulmonary layer of the pleura, and that consequently the air escapes into the pleural cavity and constitutes a pneumothorax, or else the adherent layers of pleura offer so powerful a resistance as to check the advancing process of ulceration. Emphysema due to such a cause is, however, readily recognized, whenever it occurs, by the fact of its sudden appearance immediately over the spot,—in the great majority of cases the infra-clavicular spaces,—where there have previously been the physical signs of a cavity. The degree which such emphysema has been known to attain is extreme, extending even over the entire surface, and producing serious embarrassment of breathing.

The other variety includes all those cases where the emphysema originates in the pulmonary tissue and reaches the subcutaneous tissue by way of the mediastinal spaces. This form has been carefully described by Henri Roger (*Arch. Gén. de Médecine*, 5ème S., tome xx., pp. 129, 288, 403) under the name of *emphysème généralisé*, and will be found briefly alluded to by most subsequent writers on disease of the lungs,—though the great rarity of the affection generally serves as an excuse for the omission of any illustrative cases or of any detailed description. The development of the external emphysema here depends primarily and essentially upon the occurrence of interlobular emphysema of the lungs. This is to be clearly distinguished from the more common variety, known as true pulmonary or vesicular emphysema,—a condition which, however, consists merely in the dilatation or coalescence of the pulmonary air-vesicles, without any necessary escape of air into the connective tissue of the lung, and therefore does not strictly merit the name of emphysema, but should rather be called rarefaction of lung-tissue, or merely dilatation of the pulmonary air-cells. The two varieties may be associated; though this does not seem to happen so frequently as might be expected. They usually occupy, however, the same position in the lungs: namely, the apices and anterior borders. Interlobular emphysema evidently must depend upon the rupture of some of the air-vesicles of the lung. If these are deeply seated in the substance of the lung, the air escapes into the interlobular spaces, whence it follows up the divisions of the bronchi, causing irregular enlargement of the cellular spaces, and finally gains the root of the lung. Much more frequently, however, the rupture occurs in vesicles lying close to the pleural surface, where we see the escaped air form small bubbles in the interlobular spaces, which may be moved along by the pressure of the finger, and often may be seen to unite with one another. When these bubbles are small and closely crowded together, the surface is studded with numerous small elevations of the pleura, producing an appearance which Rokitansky has aptly compared to that of froth. The air may force its way farther into the cellular tissue uniting the pleura to the lung, and may even separate that membrane to such an extent as to form flattish, movable air-bladders of considerable size. It sometimes happens that one of these distended sacs ruptures, and, by allowing the air to escape into the pleural cavity, gives rise to pneumothorax. It is easy to understand how the air may pass through the subpleural tissue, dissecting the membrane away from its attachments to the lung, until, reaching the point of its reflection on to the thoracic parietes, the gas escapes into the mediastinal spaces. The loose connective tissue there becomes highly emphysematous, presenting numerous large vesicles with delicate walls, and altogether resembling the appearances seen in animals in the slaughter-house. From the mediastinum the air readily passes upwards into the connective tissue of the neck, where it may first produce swelling in the supra-sternal, supra-clavicular, or infra-maxillary regions. It will thus be perceived that the form of external emphysema now under consideration is merely a complication of interlobular emphysema of the lungs, depending upon the escape of an excessive quantity of air from the pulmonary vesicles.

The question as to the mode of production of interlobular emphysema is a deeply interesting one, especially from its bearing upon the causation of so-called vesicular emphysema; and although the object of the present paper is rather to illustrate one of its occasional results, it will be found that the cases reported also afford illustrations of the causes. In this connection it is convenient to divide the cases of interlobular emphysema, whether accompanied or not by external emphysema, into those depending on a purely mechanical cause, and those where there is some pre-existing morbid condition which serves either as a predisposing or possibly as the actual exciting cause.

Under the first head are not to be included traumatic ruptures of the lung-tissue, produced by violent compression of the thorax, unaccompanied by laceration of the pleura, and giving rise to interlobular, mediastinal, and external emphysema. I refer rather to such cases as depend solely upon the violent muscular exertions of the patient,—as in the expulsive stage of labor, the paroxysms of cough caused by the presence of foreign bodies in the air-passages, or the convulsive efforts in hydrophobia. The most frequent of these varieties is the so-called obstetrical emphysema, or subcutaneous emphysema occurring during parturition, of which a considerable number of cases are on record. The following, which happened under my care some years ago, may, however, be given as a very illustrative example:

Case II.—Labor in a Primipara: Violent Expulsive Pains—Cervical Emphysema lasting Four Days.—H. O., primipara, aged 20 years, a large, strong, and florid woman; suffered much with nausea and vomiting during her first pregnancy. On the second day before her confinement she vomited violently, and the next day spat up one or two mouthfuls of blood-stained mucus. The first stage of her labor was lingering and tedious, but the os finally dilated well, and expulsive pains began. The child's head was large, and the soft parts were very rigid, so that, although the pelvis was roomy, the second stage lasted five hours, with very frequent, protracted, and violent expulsive efforts, during which her face became purple, and the vessels of the neck distended to an alarming degree. The labor was successfully completed, and the child did well. The following day she complained of soreness of the neck, and, on examination, marked subcutaneous emphysema was found. The swelling was most marked on the right side, where it extended from the jaw downwards to two inches below the clavicle. On the left side it was limited to the anterior cervical triangle. Percussion over the emphysematous skin on the right side gave a tympanitic note, as low down as the second rib. The respiratory murmur at the right apex was feeble and somewhat blowing. She had been conscious of no peculiar sensation at any time during her labor, and was entirely ignorant of the existence of the emphysema. Her voice was a little hoarse, but there were no bloody sputa, no soreness of the larynx, and no difficulty of deglutition. The only treatment adopted was gentle friction over the swollen parts. The emphysema disappeared from the left side in forty-eight hours, and from the right side in about five days. Normal percussion-resonance and respiratory murmur returned at the right apex in the course of three or four days. The patient made a rapid and uninterrupted recovery.

In this case it will be noticed that the emphysema extended to both sides of the neck, though much more marked on the right side. The same was the case in an unpublished instance of obstetrical emphysema occurring in the practice of my friend Dr. De Forrest Willard.

Case III.—Labor in a Primipara: Violent Expulsive Pains—Cervical Emphysema lasting Six Days.—The patient was a stout young Irish girl, aged 18 years, in labor with her first child. The labor was natural, but during the second stage the pains were violent, and the girl became unmanageable, throwing herself about on the bed, and straining with such violent and prolonged efforts as even to arouse uneasiness on the part of her attendants. Immediately after the completion of the labor it was noticed that there was marked subcutaneous emphysema extending over the right cheek, the right side of the neck, and for about one and a half inches below the right clavicle; it also extended slightly over the left side of the neck. There were no abnormal physical signs detected in any part of the lungs. The emphysema soon reached its highest point, when the swelling was very considerable, after which it diminished, and disappeared in about six days.

In these, as in all the recorded cases of subcutaneous emphysema occurring during parturition, the patients were primiparæ, and the second stage of labor was attended with unusually violent expulsive efforts. The conditions which favor the occurrence of such an accident during parturition are evident, and will on consideration be found essentially the same as are present in the other forms of mechanical emphysema above mentioned. Immediately preceding the expulsive effort the lungs are inflated to their fullest capacity, and the glottis is then firmly closed. The diaphragm being thus depressed, the muscles of expiration are brought into powerful action to compress the thorax, and thus exert a strong downward pressure upon the diaphragm and the contents of the abdominal cavity. The air which fills the lungs and air-passages is necessarily subjected to enormous pressure even in ordinary cases of labor; but when, from any cause, the descent and expulsion of the fœtus are arrested while the expulsive efforts continue violent and prolonged, no relief to the pressure is afforded at the lower outlet, and the intra-thoracic tension is greatly increased. Often the glottis is instinctively opened, giving escape to a portion of the air, and thus relieving the tension. But when the patient is strong, and, furious from her agony, becomes uncontrollable, and strains with intense and unduly-prolonged violence against an unyielding resistance, it is a matter of wonder that ruptures of some part of the respiratory apparatus are not of more common occurrence. It is probable, indeed, that such a rupture may take place at any point between the trachea and the air-vesicles; and the opinions of authors are divided as to the most frequent seat of the lesion. Thus, Demarquay (loc. cit.) holds that it is usually in the trachea, chiefly because the emphysema is, as a rule, much more marked on one side of the neck; whereas, in cases where the air has escaped into the interlobular connective tissue of the lung and reached the neck by way of the mediastinum, the emphysema is more apt to be symmetrical. This single consideration (which is not without exceptions) seems, however, insufficient to counterbalance the strong anatomical arguments which render it probable that the first part of the respiratory apparatus which would yield to the excessive strain would be the air-vesicles of certain parts of the lungs. The tissues composing the trachea and primary bronchi are so firm and yet so elastic, and the position of these tubes allows of such free distention, that it would certainly require a prodigious degree of pressure to produce a rupture of their walls. Add to this the fact that the occurrence of emphysema during labor is usually unattended with sharp pain in the line of the trachea, with much cough or bloody expectoration, or with dysphagia, which would appear unavoidable in case of actual rupture of that tube. Further, obstetrical emphysema is rarely very extensive, soon reaches its maximum, and then gradually diminishes, and usually disappears in the course of a week; whereas if there were a rent in the tracheal walls the resulting emphysema would be likely to be both more extreme and more persistent. It is difficult to furnish, on the other hand, positive evidence in support of the view that the escape of air takes place from the pulmonary air-vesicles, since there is no recorded case in which

death has occurred during the existence of obstetrical emphysema; and, as has already been said, there are no physical signs by which interlobular emphysema of the lung can be recognized during life. However, the considerations that have been advanced above, and the entire analogy of these cases with others which will be referred to where the cervical emphysema is known to have followed rupture of the air-vesicles of the lung, seem to leave no doubt that such is also the source of obstetrical emphysema.

(To be concluded.)

EPIDEMIC DUODENITIS.

BY JAMES D. McGAUGHEY, M.D.,

Wallingford, Conn.

WHILE practising medicine in upper East Tennessee, I met, during the winter and spring of 1870, a disease, epidemic in character, to which I could give no other name than that of duodenitis. The neighborhood where most of the cases were seen has always been free from any miasmatic diseases, and there have never seemed to exist any conditions favoring the generation of such. I thought the disease at first endemic, but have since understood a disease with similar characteristic symptoms prevailed in other parts of the State. Where I saw it, the cases were all in one neighborhood, scattered over several miles of a mountainous district, through which runs a large mountain-river with a rapid current, the banks being very high, and generally composed of limestone rock. People residing on the northwest side of the town (Greenville), upon low swampy grounds, were free from the disease; while those on the more elevated mountainous lands on the southeast were attacked. From the appearance of the skin in those who were sick, the common people called the disease "yellow-skin."

The first case I was called to see was that of G. E. S., aged 46, miller by occupation; an active, energetic man, but who, for some time previous, had been suffering from ill health caused by rheumatism and pleurisy. When I first saw him he had been sick eight days, and had been under the care of another physician. His symptoms were as follows: a gnawing, constant, uneasy pain in the duodenal region; tenderness on deep pressure over the left edge of the right hypochondrium, and around the pyloric end of the stomach, traceable sometimes as far down as the umbilicus; obstinate constipation; his bowels had not been moved since the beginning of the attack eight days previously, having resisted all the cathartics that had been given; micturition difficult and painful; vomiting almost stercoraceous; great anorexia—in fact, complete disgust for food; the gums had a heavy pale-blue line on their margin, like that seen in lead-poisoning; pulse slow, deliberate, and full; tongue coated heavily; skin dry and rough; respiratory organs not noticeably affected; but little tympanites. Such was the case February 2. On the 3d, there being no improvement, I gave him a large dose of castor oil with three drops of croton oil, to be repeated if the bowels were not moved in a specified time. 4th, still no passage; and the suffering was so great as to require the prompt use of anodynes. Injections were freely given, combined with the use of pills of aloes, rhubarb, and compound extract of colocynth. 5th, no improvement, and no passage from bowels; pulse full but slow; great pain of a colicky nature; micturition almost impossible. Treatment continued as on the 4th, the injections having been made more stimulating. 6th, one or two small liquid discharges, mostly of injection-material that had been retained. 7th, no change. Gave a large dose of castor oil with four drops of croton oil; six hours subsequently, I took a No. 11 catheter and fitted it to the infant nozzle of a Davidson's syringe. I then cut off its vesical end, and attached the whole to the syringe. By pressing this extemporaneous rectal tube up the bowel, keeping the injection-fluid a little in advance, it readily passed up. Through this I injected into the colon four to six pints of a very stimulating fluid. In a half-hour the injection came away, bringing a quantity of lumpy fæces, gas, etc. On the 8th the bowels were moved freely, and the patient was greatly relieved, the tenderness of the duodenal region disappearing. In a day or two great improvement was manifest: the skin became of a better color; the pulse softer, and got up to a healthy standard; the urine passed more freely. With gentle purgatives, and a quinia, iron, and strychnia tonic, the patient recovered in a short time.

Very soon after seeing this case, eleven or twelve others came under my observation; besides which, as many more cases were seen by neighboring physicians. All the cases I saw, and all those seen by other physicians, as I learned from them, commenced with the same general symptoms, such as malaise, headache, inability to keep on foot; after a day or two, or sometimes immediately, came *pain over the region of the duodenum*, sometimes very severe at the left edge of the right hypochondrium, around under the stomach, extending down towards the umbilical region; and pain in the region of the first or second lumbar vertebra. In some cases I thought the liver was implicated as well as the duodenum, but no enlargement of that organ could be detected. The pain was mostly of a gnawing, uneasy character, yet sometimes assumed a paroxysmal form of a colicky nature, requiring to be subdued by anodynes. In all the cases I examined there was tenderness on pressure, extending pretty much over the same regions as the pain. Deep pressure in the neighborhood of the pylorus would sometimes reveal tenderness when no pain was complained of. The next symptom in prominence—one met with in every case, and more or less stubborn—was constipation,—the most obstinate I ever saw: resisting for several days castor oil and croton oil, elaterium, colocynth, etc., and injections. Generally, on the third, fourth, or sixth day after the pain and tenderness commenced and constipation existed, jaundice would make its appearance. Synchronous with jaundice, or generally heralding its coming, the pulse would commence falling; and in one case it remained at 48 and 50 for several days. I suppose this depended upon the retained bile being reabsorbed into the system, acting as a sedative to the circulation through its depressing influence on the nervous system. The mind was in some cases depressed and gloomy; markedly so, in the case just mentioned, after the skin became jaundiced. In almost every instance the urinary organs became involved: difficult micturition, pain in the bladder, and an unusual liability to strangury from using turpentine. I suppose this can be explained by the urine, which was high-colored and acrid, irritating the mucous surfaces over which it passed.

I saw no other case in which there was such terrible vomiting as in that related above; but a neighboring physician told me that one of his cases had such obstinate constipation as to produce vomiting almost stercoraceous in character. This latter patient came nearer dying than any other throughout the reign of the disease. The tongue was always heavily coated. I noticed in all my cases, with perhaps one exception, a light-blue line around the margin of the gums; it generally disappeared as the case began to improve. Circumstances surrounding and attending each individual case precluded the possibility of this line being caused by lead-poisoning. The duration of the disease was, on an average, from ten days to two weeks. Many patients, after recovering, suffered from dyspeptic symptoms,—costiveness, poor appetite, etc.

The treatment I found most useful was, first, active purging; second, the free use of ipecac; third, blisters of cantharides over the tender points. Generally, after free purgation, a thorough relaxation with ipecac, and a cantharidal blister, the pain began to decrease, the

tenderness to subside, the tongue to clean off, the jaundice to disappear, the pulse to rise to a healthy standard, and convalescence to be established. Diluents were necessary for the urinary organs. Quinia, iron, and strychnia were given, with the occasional use of turpentine, to restore tonicity to the bowels, to get them to work healthfully, and also to bring up the strength of the system.

A SIMPLE METHOD OF ARRESTING EPISTAXIS.

BY ROLAND G. CURTIN, M.D.

WHILE resident at the Philadelphia Hospital, I resorted to the following plan of arresting epistaxis, with entire success:

I was called into the medical ward one night to a patient bleeding profusely from the nose, the simple measures usually resorted to—as cold, solution of tannic acid, alum, etc.—having failed to control it. Not having any of the more efficient means usually employed for the arrest of such a hemorrhage, and seeing the dry tannic acid on the table, I remembered the directions given in cases of infantile coryza by Dr. Albert H. Smith, of this city, for softening the hardened secretion in the nostrils. He recommends the introduction of lard upon a small roll of fine linen wrapped like an ordinary lamplighter.

It occurred to me that a similar roll of paper, moistened with water and coated with the dry tannic acid, inserted into the nose, might be of service. I tried it, with immediate success.

I have since found that old linen answers the purpose better than paper applied as above, as it makes a better carrier, being softer, more flexible, and less liable to break down through excess of moisture. I have also found that the powder adheres better if soft lard be used instead of water.

Any powdered styptic may be employed in the same manner. This plan presents the advantages of being always practicable, and of bringing the powder directly in contact with the mucous membrane without danger of wounding it or of breaking down the delicate turbinated bones.

I have tried this repeatedly with uniform success, and believe, if it were resorted to, that the disagreeable operation of plugging would seldom be found necessary.

332 S. SEVENTEENTH ST., PHILADELPHIA.

BLOOD-POISONING FROM THE BITE OF A RAT—SINGULAR PHENOMENA—RECOVERY.

BY JOHN H. PACKARD, M.D.,

Philadelphia.

W. T., æt. 7, a very stout and healthy boy, was bitten severely in the left forefinger, between the knuckle and the first joint, by a rat which he had caught. Fearing punishment for playing in the street, he told his parents that he had cut his finger, and concealed the real nature of the injury for nearly two weeks, when I was called to see him. The soft parts about the phalanx were now (June 11) enormously swollen, purplish red, and shining, the hand somewhat puffy, and a gland as large as a chestnut in the anterior fold of the axilla. He had some fever, especially at night, and was listless and without appetite.

Next day I made a free incision into the swollen finger, but very little pus escaped. He was put on the use of the muriated tincture of iron, with a febrifuge at night, and poultices applied locally. The symptoms all subsided; but on June 18 I was again called to see him, as he had a chain of small glandular enlargements all the way up the forearm and arm, and the swollen gland in the axilla had increased to the size of a walnut. By the third day, under hot sponging, often repeated, the lumps had gone; but

June 27 he presented a most curious phenomenon: patches, as if the skin had been bruised, very slightly raised, of a pale purplish mottled brown color, extended up the radial side of the forearm, and around the front of the arm to the axilla, up in front of the shoulder, and on the side of the neck to the head. One separate patch existed on the middle of the forearm, and another near the anterior axillary fold. A large patch occupied the axilla. Many similar but less vivid patches existed on the body, and even down on the legs. Each patch had a red rim clearly marking the line between it and the healthy skin. The only tender one was that on the left side of the neck; but he complained somewhat of soreness all over him, apparently muscular. There was, however, no stiffening of the jaws, or other sign of tetanus. For several nights he had high fever. Under the steady use of the iron, with hot sponging, all these symptoms abated, and on July 2, as he was to all appearance well, I ceased to attend him.

July 15.—I saw him again, and found that he occasionally had a reappearance of the patches, but very faint, and with no constitutional symptoms.

I am hardly prepared to offer any comments on this case, which, however, seems to me to be a very curious one. The gradual onset of the symptoms, and the slowness with which they succeeded one another, the disappearance of the chain of small glands, and the subsequent staining (after the lapse of a week) of the skin over so large a portion of the surface with what must have been disorganized blood, and the seeming inadequacy of the constitutional disturbance, are the main points which impressed me. From these facts—the sluggishness, if I may so speak, of the local phenomena, and the lack of grave general symptoms—I was induced to give a guardedly favorable prognosis, which was happily verified.

1928 SPRUCE STREET, July 15, 1872.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. S. D. GROSS.

Reported by FRANK WOODBURY.

LECTURE ON INFANTILE PARALYSIS.

A PALE-LOOKING boy, thirteen months old, was brought to the clinic, May 4, from New Jersey. There was complete paraplegia of the lower extremities, and but little power of motion existed in the arms. He had been afflicted in this way almost from birth. He had control of the sphincters of the bladder and rectum, and the digestive function was well performed, although his appetite was poor. The temperature of the affected limbs was normal, but their muscles were atrophied. His growth seemed retarded, and his body was poorly developed. Though more than a year old, he had cut only six teeth. He appeared anæmic.

℞—Tinct. ferri chloridi, f℥j;
Tinct. nucis vomicæ, f℥ij;
Hydrargyri chlorid. corrosiv., gr. iv. M.

S.—Take five drops three times daily in a tablespoonful of sweetened water.

℞—Ung. hydrargyri, ʒiij;
Cerat. simplicis, ʒv;
Veratriæ, gr. vi. M.

S.—Put a piece the size of a marrowfat pea, twice a day, over the entire spine and along the back of the limbs.

Apply the ointment gently at first, until the parts become accustomed to its use. Wash the child every day with tepid water containing a tablespoonful of common salt to the quart. After bathing, wring the end of a towel out of cold water, and with it strike the entire surface of the body, quite smartly,

until the skin is reddened. This treatment to be continued for a month; at the end of which time his mother was directed to bring the child back.

This is a case of a variety of nervous affection known as infantile paralysis. In this affection both lower limbs are generally attacked, although the loss of power may not be equal on the two sides, one leg possessing more motion than the other. The paraplegia, however, is sometimes complete. In all these cases the sensibility of the parts is preserved, or if affected at all is never entirely destroyed. The loss of power extends to the muscles of the thigh, and produces inability to flex the limb upon the pelvis, and may include the perineal muscles, causing incontinence of urine and want of power to retain the contents of the rectum. This disease is met with in young children about ten months old, occurring either during teething or a little before or after, from which circumstance it derives the name of infantile paralysis. Its attack is generally sudden and without previous warning. The child is put to bed at night apparently well, with a good appetite, and nothing to indicate the onset of the disease. During the night he perhaps wakes up thirsty, and appears restless and feverish. When the mother goes to him in the morning she finds the lower limbs powerless and generally lowered in temperature. The affection is generally confined to the lower extremities, very rarely implicating the arms. It may be limited in its extent to one limb, or it may involve all the extremities, making the child perfectly helpless though still retaining its intelligence.

The pathology of the affection is manifestly some lesion of the spinal cord, the brain being unimpaired in the exercise of its functions, and the special senses unaffected. The suddenness of the attack, and the paralysis of a set of nerves taking their origin from a particular portion of the spinal cord, point to a lesion affecting a limited extent of that structure or its membranes. By inflammation of the theca, generally the arachnoid, there is produced an effusion of serous fluid into the subarachnoidean space, which infiltrates the surrounding areolar tissue. This inflammation extends to the sheaths of the nerves, producing thickening. In this way the nerves are compressed by the effusion and by their investments in the intervertebral canals, thus interrupting the nerve-fluid or current. Paralysis follows in those muscles which obtain their nervous supply from trunks which have their action interfered with at the seat of the disease.

This affection is very obstinate, and does not respond well to treatment; in the majority of cases the paralysis remains, crippling the patient for the rest of his life. After some time, the muscles become soft and atrophied, and their fibres finally undergo fatty degeneration. When this condition is fully established the muscles are changed, and have lost the power of performing or regaining their proper function. The case then is not amenable to treatment, and the patient will remain a cripple for life. The health generally continues unimpaired, and nutrition, other than in the affected parts, is well carried on. The other portions of the body develop in size and strength with the growth of the child, forming a striking contrast with the paralyzed limbs, which retain their original size, or are slightly atrophied.

However, before this condition of fatty degeneration is complete, the patient may improve by judicious and persistent treatment. The condition of the muscles may be ascertained by means of the galvanic current, which is also our most efficient therapeutic agent in the treatment of these affections. If the integrity of the muscles is not entirely destroyed, they will respond to the application of electricity, which is to be applied as a means of diagnosis. If they are insensible to the current and do not contract, the prognosis is unfavorable. To derive the greatest benefit from electricity in the treatment of this affection, it is essential that the interrupted current should be applied as early as possible in the course of the disease, and used once or twice every day. Our attention, however, should be directed mainly to the spine. If my opinion regarding the pathology of the affection is correct,—that it is produced by pressure, due to inflammation, on the nerves at their origin,—then counter-irritants and sorbefacients would be useful. Bleeding, either by leeches or cut cups, and blisters, produce good effects if used early, and some benefit may be derived from rubefacients and dry cupping immediately over the lesion. To my mind, the best and most efficient means of treating the disease is by establishing, with a red-hot iron, a good issue over the affected spot. The eschar formed comes away in a few days, leaving an ulcer, which should be encouraged to discharge freely. I am satisfied that this agent is not used so much as it should be. It is a valuable adjunct in the treatment of nervous diseases caused by subacute inflammation, or by a deposit the result of inflammation existing in the spinal cord or its membranes. It should have the preference over any other means of causing an issue, in the treatment of all protracted and obstinate diseases where a counter-irritant or revulsive effect is desired,—as in Pott's disease of the spine, or in hip-joint disease, where as a topical agent it is unequalled.

During the treatment the muscles must be rubbed and shampooed, and steadily exercised with the battery. The general health must be maintained by alterants and tonics, if necessary. Special attention must be paid to the secretions, and the patient should be carried daily in the fresh air. If the disease has not progressed too far, by careful attention to the nourishment of the little patient, and perseverance in the line of treatment indicated, the best results may be hoped for.

OPERATION FOR INVERTED TOE-NAIL.

W. C., 18 years of age, complained of an affection of the nail of the great toe, for which he came before the class May 15. The internal border of the toe-nail on the left foot grew into the flesh at its side, and gave rise to inflammation and pain, thus interfering with the use of a shoe, and crippling him in walking.

Affections of the feet and toes, with more or less deformity, are quite common. They may be congenital, or be produced by paralysis or rheumatism; but the most prolific source of these disorders is the habit of wearing badly-fitting shoes, particularly those which are too short.

Corns are formed by a hypertrophy of the cells of the epidermis, accompanied by local inflammation of the superficial portion of the true skin, and the effusion of lymph. They are found generally on the toes, but may be produced by the same causes in other parts of the body, as in the hand or the sole of the foot. They are caused by the irritation produced by pressure being followed by inflammation and effusion. Corns are divided into hard and soft, not on account of any essential difference, because they are anatomically the same, but for convenience only. The soft variety occurs only between the toes, and derives its name from being kept constantly moist by the perspiration of the part. In both varieties there is frequently a little serous cyst at the bottom of the corn immediately over the true skin. Corns are sometimes the seat of severe pain and inflammation, and become so tender and painful as to interfere with walking. In treating them, the inflammation should be reduced, and the thickened cuticle pared or scraped away and the surface touched with nitrate of silver or tincture of iodine. This is to be repeated until the cure is effected. To attain this, the tight shoe must be discarded, and one made which is more carefully adapted to the shape of the foot.

Bunions generally occur over the first metatarso-phalangeal joint, appearing but rarely on the corresponding joint of the little toe. They are caused by inflammation and induration of the mucous bursa over this joint. This affection is frequently accompanied by malposition of the great toe, the phalanx of which is forced strongly outward, encroaching on the other toes, making an angle with the inside border of the foot, which is made more marked by the projection over the articulation. This is quite common, and is produced by wearing a shoe which is too short and too narrow for the front part of the foot. An abscess sometimes forms in the sac of the bunion, which requires an early and free incision down to the bone. If the joint is much inflamed, it is to be treated by rest and acetate of lead and laudanum. In ordinary cases, if there is no inflammation, the bunion may be cured by laying it open and excising the sac; but if the parts and system are not well prepared, dangerous erysipelas may follow the operation. Where the patient is crippled, and the joint is the seat of constant suffering, amputation may be performed through the metatarsal bone.

Produced by the same causes frequently, and met with quite

as often as the bunion, is another affection of the toes, which is known as inversion of the toe-nail, or merely ingrowing nail. This trouble is not necessarily confined to the great toe, although it generally occurs in that situation. It consists of the ingrowing of the edge of the nail into the integument, and produces inflammation and severe suffering. There seems in some families to be a congenital tendency to this affection. I have seen numerous instances where several members of the same family have been thus afflicted, and where it would almost seem to be hereditary. This incurvation of the edge may be confined to one side, or may exist on both borders of the nail, affecting them generally unequally. The pressure exerted on the soft parts gives rise to pain in walking. These parts finally inflame and swell, producing what is called proud flesh. This may be followed by gangrene.

This affection may be caused by pressure of a boot, but more frequently arises from cutting the nail too short, thus allowing the integument to rise above it and bury the edge in the soft parts. This condition is persistent, and can only be relieved by an operation. The one which consists in scraping a gutter in the nail, in order to invite straightening, hardly produces even transient relief, and is generally without any effect whatever. Paring away the inverted portion of the nail, and removing the thickened integument at the side, may act as a palliative, but the disease will, in most cases, return. The best treatment, and the one calculated to give the best result, is excision of the offending portion of the nail. The operation of removing the entire nail, as performed by Dupuytren, is barbarous and unnecessary. The better operation is performed in this way: the point of a strong scalpel is inserted at the root, and the nail divided its entire length, on a line with the ingrowing border, and about half an inch inside of it, at its termination. The wedge-shaped portion of the nail thus embraced is then dissected off, including the root; and the operation is generally followed by a radical cure.

[This operation was performed on the patient, and the toe directed to be surrounded with a dressing wet with the anodyne and saturnine solution, and the foot ordered to be kept at rest and elevated.]

A CASE OF HYDROCEPHALUS.

W. W., æt. seven weeks, was brought to the clinic May 11. His head was very much enlarged, and the fontanels were wide open and expanded. The subcutaneous veins of the scalp were dilated and enlarged, and their course could be easily traced under the skin. His complexion was waxy, and his eyes were small and seemed only half open. His mother stated that he was fretful at night and during the day. She was obliged to carry him on a pillow, for fear that by a sudden movement of the heavy head his neck might be broken. The child's head was large when it was born, but it had since then greatly increased in size.

This affection is known as dropsy of the brain, or hydrocephalus, and is due to intra-uterine arachnitis, or inflammation of the serous membrane covering the brain and lining the ventricles. The effusion may take place either in the subarachnoid space or in the ventricles, and may vary in quantity from a few ounces to several quarts. This, when it exists in considerable quantity, compresses and flattens the brain-tissue against the floor and sides of the encephalon. The idea that this is due to effusion between the dura mater and the skull is incorrect, as the dura mater is a fibrous membrane, and cannot secrete water any more than fibrous tissue in any other part of the body. The fluid is perfectly clear, slightly saline, and free from albumen. In this respect it differs from the fluid effused in hydrocele, which is coagulable by heat, alcohol, and the dilute acids, showing its affinity to the serum of the blood. The liquor of hydrocephalus is exactly like the cephalo-rachidian fluid, and the affection strongly resembles spina bifida, or hydrorachitis. For a wise purpose, nature has not placed albumen in the cerebro-spinal fluid, as under certain circumstances it might coagulate, and thus produce compression.

This disease exists previous to birth, which accounts for the effusion being present when the child is born. The fluid rapidly increases in quantity, the head containing, in some cases, more than a gallon, diffused over the surface of the brain and in the ventricles. There has been much diversity of opinion regarding the pathology of this affection. We know that a child may have an attack of peritonitis, before birth, without assignable cause, and there is no reason for doubting that an attack of chronic or subacute arachnitis may take place under similar circumstances. The compression that the fluid makes on the hemispheres affects the special senses. Hearing and sight are impaired, and the child is idiotic and speechless. The power of locomotion is absent, owing to the compression of the nerves at the base of the brain and of the spinal cord. This is generally accompanied by loss of control over the contents of the rectum and bladder. The patient may live for fifteen or eighteen years before he succumbs to the disease; but such instances are very rare, the affection generally proving fatal within a few months or a year. The prognosis therefore is bad: if the patient lives it will have only a vegetable existence.

Various means of treatment have been recommended for this affection. In its early stage some good may be derived from the use of sorbefacient applications, with a carefully-regulated diet, and an occasional laxative. The scalp has been shaved, in some cases, and blisters applied, without any benefit. Systematic compression with a bandage and adhesive strips has been recommended, but it invariably causes convulsions. Paracentesis of the skull has been tried, and the pressure of the brain relieved by a small portion of fluid being abstracted from day to day. If too large a quantity is taken away at once, convulsions are immediately produced. The function of the cerebro-spinal fluid is to equalize the pressure on the brain and spinal cord; and if this equilibrium is disturbed, convulsions follow. If a very small portion is drawn off at a time, with a delicate trocar or the needle of a hypodermic syringe, the operation might be successful. Indeed, if we could credit the statements that have been made about this operation, we could not doubt its propriety and advisability. Dr. West has collected the records of sixty-three cases in which the operation was performed, in eighteen of which it was successful. Dr. Conquest states that he cured ten out of nineteen in this way. But these statements are unreliable, not because of wilful misstatement on the part of the compilers, but simply because they allowed themselves to be deceived. In two cases in which I performed the operation the patients died within four days, of convulsions. I have never, myself, heard of a radical cure being obtained in this way.

The case is hopeless. I feel loath to interfere, because in such a case the surgeon simply becomes the executioner of the child. I therefore refuse to operate, because I consider the child beyond treatment.

[Two weeks afterwards the patient died in convulsions. The following notes were taken at the autopsy. The length of the child was twenty-three and a half inches; its age was nine weeks at the time of death; the thumbs were folded in over the palms, and the fists tightly clenched, showing spasm of the flexor muscles. The measurements of the head were as follows:

Occipito-frontal, or horizontal circumference above the ears, 22¼ inches.
Occipito-mental, or diagonal " " " 23½ "
Occipital-parietal, or vertical " behind the ears, 21¼ "

The upper portion of the calvaria was entirely membranous. Two centres of ossification, about two inches in diameter, existed at the situation of the parietal bases, from which lines of ossification radiated in all directions. On opening the cranium, the ventricles were found to be so distended that they occupied the entire vault of the cranium. The brain was represented by a thin sheet of nervous tissue, lining the interior of the calvaria, thicker at the base and front part, but hardly demonstrable at the vertex. The septum lucidum divided the cavity into two, which communicated through the foramen of Monroe, which measured one inch and three-quarters in diameter. The contained fluid measured seventy-six fluidounces, and was clear and limpid. On using the appropriate tests it was found to contain no albumen or sugar, but held in solution a considerable quantity of chloride of sodium. Its reaction was not evident.]

INCONTINENCE OF URINE IN EPILEPSY.—M. Legrand du Saulle, in a recent communication (*L'Abeille Médicale*, June 16, 1872), dwells upon the importance, in a medico-legal point of view, of incontinence of urine, especially when intermittent, in the diagnosis of epileptic mania.

M. CERSOY, of Langres, writes to the *Bulletin Général de Thérapeutique* for June 15 that in the treatment of the hemorrhagic form of smallpox he endeavors to produce an artificial eruption by means of the external application of croton oil or of tartar emetic.

HYDROPHOBIA WITH ENDOCARDITIS.—Surgeon A. M. Vachere reports in *The Indian Medical Gazette* for April a case of hydrophobia which was complicated by endocarditis.

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THURSDAY, AUGUST 1, 1872.

EDITORIAL.

HOSPITAL POSITIONS.

WE chronicled in our last issue the fact of the reinstatement of Drs. Hall and Levis in their former positions of Attending Surgeons to the Wills Ophthalmic Hospital in this city; and, inasmuch as we have already expressed our sense of the justice thereby done these gentlemen, we should be disposed to let the action of the Board of City Trusts in the matter pass without further comment, were it not that the occasion seems appropriate for directing attention to the manner in which a medical officer is occasionally discharged, and in which a vacancy occurring in the medical staff of a hospital is filled by the management.

The two gentlemen already alluded to were Attending Surgeons to the Wills Hospital before the recent reorganization of its staff; and the action of the Board of City Trusts, after they had been dropped from the active staff, in first electing them Emeriti Surgeons and then in reinstating them as Attending Surgeons, is at least presumptive evidence that they had always performed their duties acceptably; and yet, because one was absent from the country, and the other thought that his past services rendered it unnecessary for him to take an active part in the canvass, they failed of an election. The course that the Board has recently taken, if it means anything, indicates that a wrong has been committed, which it now recognizes and is anxious to repair by an act of tardy justice. The annoyance which Drs. Hall and Levis have suffered would, however, have been spared if the Board had been better qualified to judge of the relative merits of the candidates, and had contained among its members at least one or two physicians. The judges of our courts, when they made their appointments to this Board, were probably guided partly by personal preference, but also in the majority of instances by a desire to place upon it men who would command the confidence of the community. It is probable that they thought very little, if at all, of the qualifications of those they were selecting to properly conduct a hospital. It may be said that there are not many physicians who have much financial ability,—although we know of some who would inspire as much confidence in this respect as one or two members of the Board,—but there are many points in the management of Wills Hospital, and, indeed, of some of the other institutions under the same management, in which the advice of an intelligent physician would be of great advantage. It is true that in cases where such advice is required it can always be obtained from the medical officers of the institution; but practically, although we believe that there is a growing disposition on the part of managers to listen to the suggestions of the medical staff, no hospital will be found to be well conducted in which there is not a medical element in the controlling body. The ventilation of wards and the diet of the sick are among the subjects to which many physicians have given careful attention, and with which gentlemen who may be good business-men are not necessarily familiar. These Boards are, moreover, practically close corporations,—for they have the power of filling their own vacancies, and they may perhaps be as much influenced in making their selections by the desire to secure a pleasant companion as by any other feeling.

We should be very glad if it were possible to introduce into this country the plan of competitive examinations pursued in France in filling vacancies occurring in the staff of a hospital. In one hospital in this city the candidate for the position of resident physician must first pass an examination before he can be elected; but the Guardians of the Poor, who have charge of this hospital, have somewhat nullified the effect of this excellent regulation, for, although they have never elected an applicant who has been rejected by the examining board, they have not in all cases been guided by its recommendations in making their appointments. We do not see why every hospital position should not be open to competition of this kind. It has sometimes been asserted that men of undeniably great ability and knowledge will fail at an examination, and that, if this plan were adopted, it might occasionally be prejudicial to the interests of the sick, as well as to those of science. But, even admitting that in a few instances it may be the cause of injustice, it seems to us less objectionable than any other plan. The interests of the profession are unquestionably advanced by having these positions occupied by gentlemen able to add by their observations to the general stock of knowledge of pathology, diagnosis, and therapeutics; and it would seem to be clearly the duty of those having the charge of institutions to select only those physicians who, in addition to this qualification, may be supposed to have a due sense of their obligations to the patients committed to their care. And yet, while we will not say that the skill of the candidate is entirely overlooked, it cannot be denied that it has occasionally happened that other circumstances have been allowed to have at least equal weight with the managers. It would not be difficult to prove that political influence has been freely used in some of the canvasses for medical positions that have taken place recently in this city, and, in cases where this would be of no avail, that the successful applicant has resorted to arguments founded upon the family, social, or business connections of the managers. If the hospital is under the exclusive control of a religious body, it would appear that sectarian feeling is appealed to; for it is diffi-

cult to explain in any other way the fact that the greater number of the medical officers of the Episcopal Hospital are Episcopalians, and that Presbyterians predominate in the recently-appointed staff of the Presbyterian Hospital.

We are happy to think that in many cases the choice of an attending surgeon or physician has been made solely with reference to his qualifications for the post; our object in calling the attention of the profession to this subject, is to induce it to exert whatever influence it may possess to bring about such a state of sentiment in the community that it will be made impossible for managers ever to elect physicians to positions of trust or profit whose attainments do not clearly entitle them to such an honor, or capriciously to dismiss those who have served an institution faithfully. And this we think can best be accomplished by the profession securing for itself representation in the managing Boards of all institutions in which it is in any way interested.

THE NECESSITY FOR PUBLIC BATHS.

THE daily newspapers inform us, from time to time, of the arrest of some unlucky urchin, who, in the indulgence of an instinct with which all boys are in a greater or less degree endowed by nature, has ventured to take a swim in one of our rivers within the city limits. We confess that in this matter our sympathies are rather with the law-breakers than with the law-makers. In a city like Philadelphia, where the summer heats are excessive and where two rivers flow tantalizingly through populous districts, the case seems a peculiarly hard one for the boys, especially as there are many parts of the city on either river-front where bathing might be indulged in without the smallest offence against propriety. During severe heat such as that of the last two weeks, frequent ablutions are not only essential to comfort, but also to health; and since many of the houses in which the laboring classes live are entirely unprovided with conveniences for bathing, a large portion of the community must therefore practically, under existing circumstances, dispense with it. It is true that there are in the city a few institutions where baths can be obtained either gratis or at such a price as to be within the means of the poor; but these are few, and entirely inadequate to meet the wants of the population.

We would therefore urge upon the city authorities the institution of free bathing establishments, which might be, as in Paris, floating bath-houses, where a very small sum only is charged for a bath. These would not only satisfy the requirements of cleanliness and of health, but would afford an opportunity for learning and practising the art of swimming. Until this is done, we would suggest such a modification of the city ordinance as will permit the exercise of that virtue which has been proclaimed to be next to godliness.

THE heavy rains of the past month, if not so likely to prove beneficial to vegetation, and to increase the amount of water in the springs and streams of the neighboring country, as if the same amount of rain had been distributed over a longer period of time, have been of incalculable advantage to the citizens of Philadelphia in thoroughly cleansing the streets and in flushing the sewers of the city.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 13, 1872.

DR. H. LENOX HODGE in the chair.

DR. J. H. CATHCART presented a specimen of *scirrhus of the mammary gland.*

Dr. H. LENOX HODGE exhibited the *head, neck, and trochanters of the femur*, removed by excision in a case of coxalgia.

The patient was eight years of age, and had been under treatment in the Children's Hospital for nearly two years. The disease progressed to the suppurative stage, and the child's health became more and more impaired. Excision was performed, and the head of the bone was found, as the position of the foot had indicated, out of the acetabulum and on the dorsum of the ilium.

The specimen exhibited ulceration of the cartilage, caries of the bone, and separation of the periosteum,—conditions which occur in the later stages of coxalgia: the entire head of the bone, and the under surface of the neck, extending to the lesser trochanter, were diseased.

Dr. HODGE also exhibited the *uterus and ovaries* removed from a young woman about twenty-five years of age, whose body was brought to the anatomical rooms of the University of Pennsylvania. The left ovary was occupied by a small cyst, which measured about two inches in length and about one inch and a half in width. It contained a thin reddish fluid. At one point the internal lining membrane was marked by a scar-like depression, and at another by two greenish-colored spots about a quarter of an inch in diameter. The left ovary was very much atrophied. The specimen showed that pelvic cellulitis had existed, extending to the left lateral ligament and ovary.

Dr. J. E. MEARS remarked that the specimen presented points of interest relating chiefly to the origin and development of ovarian cysts. Here was afforded an opportunity of examining the cyst in an early stage of development, and surrounded by the causes which might be regarded as instrumental in its production. He thought that inflammation had involved the ovary secondarily; that it had extended to it from the primary location in the pelvic cellular tissue. Attacking the ovary, it had produced a hyperplasia of its tunics which was sufficient to resist the escape of the ovum from the mature follicle. The amount of the fluid in the follicle continuing to increase, we would have, as stated by Rindfleisch, the beginning of an ovarian cyst.

The "scar-like depression" alluded to by Dr. Hodge he believed to be the remains of a small cyst, the walls of which had ruptured and which were being removed by absorption. In reference to the physical properties of the fluid contained in the cyst, he stated that, so far as related to its slightly viscid character, it partook of the nature of fluids contained in unilocular cysts, in which the fluid is, according to his observations, uniformly much less viscid than in multilocular cysts.

ORGANISMS IN VACCINE AND VARIOLOUS LYMPH.—Prof. Cohn, of Breslau, has found (*Virchow's Archives*, June 13) in vaccine and variolous lymph minute organisms which he believes to be micrococci, and which he proposes to call Microsphæra. He believes that these give rise to fermentation in the lymph, from which products are evolved capable, when inoculated, of causing the pathological processes known as variola and vaccine disease. He regards them as essential to the transmission of the disease, although not themselves the carriers of the contagious principle.

REVIEWS AND BOOK NOTICES.

CLINICAL LECTURES ON THE DISEASES OF WOMEN. By Sir JAMES Y. SIMPSON, M.D., D.C.L., etc. Edited by ALEXANDER R. SIMPSON, M.D. 8vo, pp. 789. New York, D. Appleton & Co., 1872.

This book belongs to classical medical literature, and deserves something better at our hands than a captious, or even a favorable, criticism. Simpson's work lies at the foundation of British and American obstetric culture, though lapse of time and increase of scientific knowledge may have dulled the memory of many to the fact. We forget what almost innumerable hints, suggestions, inventions, discoveries, novel applications of the discoveries of others, now grown to be household words and things, we owe to him,—as one often uses without thought the phraseology of the Bible. We read the work, therefore, at a disadvantage; we peruse page after page of original matter, and fail to consider it as such: it has been incorporated long ago into the vast body of medical knowledge.

Still, as one reads, he cannot fail to catch the inspiration of the book, and is fired by the wonderful spirit of the writer,—who was no specialist, plodding in some limited field, but like one whose paternal acres could not contain him, who must, when his task was done, burst out into the open fields beyond, and sow and reap another harvest.

From chloroform to sulphate of nickel, he was at everything,—poisoning himself and his friends with new drugs, shaping and re-shaping pessaries, till at last we have to pause and think what discoveries, what appliances in the treatment of female diseases, he did not originate or bring to light.

But since death has freed adverse critics from the danger of a reply from that pen,—always ready at launching literary thunderbolts of one sort or another,—they have rushed to the attack. For them the dead lion has no terrors: one calls him the "prince of quacks;" "Nobody cares anything about acupressure now," says another; "He didn't discover chloroform," cries a third, who may or may not know anything about it. There are certain writers whose mission in life it is to pick to pieces and destroy the characters of dead people, and disparage their works: they are called literary ghouls.

The book before us—the third volume in the series of Simpson's works—embraces clinical lectures on a numerous list of topics. Evidently suited for oral delivery, and many of them needing sorely the revision which he might have given them, they still form an invaluable book for the busy practitioner, if only from the multiplicity of methods of treatment suggested, and from the spirit of careful experiment which runs as a thread through them all.

There are in this volume lectures on Diagnosis of Diseases of Women, Vesico-vaginal Fistula, Cancer,—wherein are set forth fully the various caustics, their method of application, and their relative value, by one who has thoroughly tried them himself,—the very full and valuable lectures on Ovarian Dropsy and Ovariotomy, the History of the Craneoclast, Displacement of the Uterus, and the Use of Pessaries, besides many more: in fact, their number is so great that more than a mention is impossible in our allotted space; but almost all are well worth careful reading and study, each forming as it were a complete monograph of the knowledge of the given topic existing at the time of their delivery.

But there is very little attempt made by author or editor to give any one else credit for anything: we are left under the general impression that Simpson invented everything mentioned in the text, and designed all the pictures,—except those which we recognize as old and familiar friends. This total want of reference except where it could not well be avoided is the great defect of the book: it destroys half its usefulness; for in a technical work foot-notes are never obtrusive, and to those who need them they are priceless.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. GAILLARD THOMAS, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, etc. 8vo, pp. 784. Philadelphia, Henry C. Lea, 1872.

The names of American surgeons have been prominently connected with the progress which gynæcology has made during the past fifteen years; but while Sims, Bozeman, Emmet, and Atlee have recorded the results of their experience in valuable monographs on special subjects, no work has appeared which gave a comprehensive survey of the treatment of the diseases of women. To supply this want, to unite the "disjuncta membra," and systematically to review the whole subject, is the object of Prof. Thomas' treatise. Its appearance was eagerly awaited on both sides of the Atlantic, for he seemed eminently fitted to perform the task, both on account of his connection with large hospitals, and from the fact that his name has been intimately associated with original investigations in this field. Numerous additions and alterations have been made in this the third edition, amounting in fact to one-fourth of the present volume; nor have these alterations been unimportant, for the author, keenly alive to the fact that there is no branch of medicine in which greater activity has been shown, has conscientiously incorporated the results of recent investigations both in Germany and England.

In his preface, Dr. Thomas calls especial attention to the new term which he seeks to introduce into uterine pathology,—viz., "areolar hyperplasia,"—which he suggests as a substitute for the already numerous synonyms by which that state of chronic enlargement of the uterus, with which—call it as you will—every gynæcologist is familiar, has long been known. Indeed, throughout his whole work he manifests a disposition to create new terms,—to divide and subdivide,—forgetful that it is only in the infancy of science that each individual fact and condition must be labelled and ticketed. An observer of large scope and synthetic mind recognizes these special conditions to be but successive steps in one and the same process, the one inevitably resulting from the other if the original cause remains in action and includes the whole series in one comprehensive term. Looked at in this light, how much that is labored and artificial in uterine pathology falls to the ground! We have only to apply to the uterus our general knowledge of pathological processes as they exist in other organs, to find them producing the same results, modified, it is true, here as elsewhere, by its anatomical and physiological characteristics. Catarrhal inflammation of the mucous membrane of the uterus excites growth and proliferation of the sublying cellular elements, just as a similar condition of the mucous membrane of the intestine produces hypertrophy of its muscular tissue. This increased growth, affecting mainly the interstitial tissue of the uterus, results, as in other organs, in a subsequent condition of cirrhosis. That the periodic engorgements, the frequency of "insults,"—to use Virchow's expression,—the cycle of rapid development and involution which pregnancy involves, should furnish the most favorable conditions for the continuance of any perverted action when once established, is readily understood and granted; but the process is the same, and is included under the same comprehensive laws which govern other organized tissues. Knowledge is not advanced by slavish adherence to old-time definitions of inflammations, or by clever avoidance of words already in use by the coinage of a new and ambiguous paraphrase:

> "Denn eben wo Begriffe fehlen,
> Da stellt ein Wort zur rechten Zeit sich ein."

Nay, more. If the phrase "chronic metritis" should be given up, would we gain anything by substituting the term "areolar hyperplasia"? The use of the word *areolar* as describing a definite tissue has been abandoned even in our college text-books, last of all to accept an innovation; while it is unquestionably true that the muscular elements also, to a certain extent, increase and multiply.

The mistake of separating and the futility of attempting to diagnose "chronic cervical endometritis" from "chronic corporeal endometritis" has already been pointed out by other reviewers; and we would only warn the enthusiastic student of this book against attempting to establish a diagnosis by "causing the sound to impinge against the sides of the cavity of the fundus," when, if the body is affected, "pain will be felt which may last, like a toothache, for half an hour, while the withdrawal from the cavity will be followed by a few drops of blood with mucus." If inflammation does not already exist, these efforts at "differentiation" will probably be followed by eventual success. In fact, Prof. Thomas himself, with admirable candor, calls attention to the fact that

"injuries from sounds act so evidently in exciting inflammation as to need only mention,"—an axiom correct in pathology, however awkwardly expressed.

In the chapter on Uterine Displacements, the author, fully recognizing the importance of clearly understanding the normal position of the uterus, quotes, first of all, Meadows' statistics, which show that posterior displacements of the uterus greatly preponderate; then Nonat's observations, to prove the overwhelming frequency of anterior displacements; and, lastly, to clear away any confusion which may have arisen in the mind of the reader, a *garbled* and *inaccurate* translation of Corde's admirable paper on "The Normal Position of the Uterus." The illustrations of the various kinds of pessaries which adorn this portion of the work are numerous and attractive, including two original instruments of the author, by which the uterus is securely held in its unknown "normal position."

The chapter on Cancer and Epithelioma is too hopelessly confused for us to attempt criticism. We would only call attention to one point, where, in speaking of cancer of the body of the uterus, the author has been unintentionally interesting. Some years ago, Paget described, under the title of "Recurrent Fibroid Tumors of the Uterus," a growth which, while it resembles the ordinary fibroid tumor in its general appearance, differs from it markedly in its tendency to recur. Other tumors have also been described, which, on account of their great resemblance to medullary cancer, and their malignant character, have been classed among the cancerous growths. Moreover, in the literature on the subject there exist here and there descriptions of the so-called cancer of the body of the uterus. Gusserow first recognized the fact that these growths were all sarcomatous tumors of the uterus, and instigated further inquiry on this subject. Since that time, Hegar, in an able paper, has thrown much light on the hitherto obscure pathology of these tumors, and shows that there exist two forms of sarcomatous tumors of the uterus, in one of which the mucous membrane is the seat of a diffuse infiltration with sarcomatous elements, forming a friable mass, which gradually fills up the cavity of the uterus, and may project through the os uteri; or the tumor may be more or less circumscribed, resembling in its seat and appearance the intramural fibroid tumors. The character of these tumors is essentially malignant, always recurring after removal, and eventually causing the death of the patient. One of the most important points in the diagnosis and prognosis is the *slowness* of the fatal issue compared with that of the true carcinomatous tumors of the cervix, or the far more common form, the cancroid, affecting the same portion of the organ,—a fact which Dr. Thomas has himself noticed in the cases which he describes —erroneously, we think—under the title of "Cancer of the Body of the Uterus." A microscopical examination is the only sure and easy way by which a diagnosis can be made. Space fails us to develop further the details of this interesting subject.

If we have ventured to criticise certain passages in Dr. Thomas' book, it is only to make more emphatic the assertion that, regarded as a whole, there is no book on the diseases of women in which the student will find the subject presented in so practical and useful a form. The arrangement of Dr. Grailey Hewitt's book is such as to render the most tedious repetition inevitable, and to disqualify it for use as a text-book; but in the work under consideration each subject is for the most part treated clearly and succinctly, the one topic naturally introducing the other.

HISTORICAL AND BIOGRAPHICAL MEMOIRS, ESSAYS, ADDRESSES, ETC., written at Various Times during the Last Fifty Years, and now First Published in their Collected Form. By GEORGE B. WOOD, M.D., LL.D., Emeritus Professor of the Practice of Medicine in the University of Pennsylvania. 8vo, pp. 576. Philadelphia, J. B. Lippincott & Co., 1872.

To the man retiring from the active duties of life we believe there ever comes the task of calmly reviewing his past career, and, should he have been an author, of so fashioning and so completing his works as he would wish them to be remembered.

This volume is a result of the performance of such a duty by Dr. Wood, and "consists of various productions of the author, written at different periods of his life, from early manhood to the present year. The greater number of them have already appeared in print; having been published either in the Proceedings of the Societies to which they were communicated, or, in an isolated form, by the different bodies by whose appointment, or at whose request, they were prepared. A few of them have never heretofore been printed," etc.; but all are papers to which the doctor "felt desirous of affording a better chance of durable existence than they would probably have in their present scattered and isolated state, and, at the same time, a better opportunity for whatever useful influence they may be calculated to exert;" and he "resolved to give them the consolidated form in which they are now offered to the public." Arranged under—I. Historical Memoirs; II. Biographical Memoirs; III. Essays, Addresses, etc., they are presented more especially to non-medical readers, who will find facts not generally known,—the result of laborious research,—and given in a manner going to show that the author, had he chosen history, would have excelled in that branch of literature.

We invite our readers to a brief notice of an Historical Memoir of the University of Pennsylvania, from its origin to the year 1827. At the time of its republication, however, footnotes were added, so that we have an almost continuous narrative to the year 1834. We select the following facts. In 1689, only seven years after the foundation of Philadelphia, a public school was started, which received its final charter in 1711 from William Penn, and was given in charge of "fifteen discreet and religious persons, of the people called Quakers." For more than sixty years this continued to be the only public place of instruction in the Province. Franklin drew attention to this, and in 1743 drew up the plan of an academy; but it was not until 1749 that the rules of organization were signed by the trustees. In the Academy were taught Latin, English, and Mathematics; and a Charity School for both sexes was opened, in which the children of poor citizens were instructed gratis, their number being seldom short of one hundred. In 1753 a charter was obtained, and, the school continuing prosperous, an additional charter was granted, in which the Board was changed into that of "The Trustees of the College, Academy, and Charitable School of Philadelphia," with the condition annexed (afterwards the source of much trouble) that the trustees and professors, before entering on the performance of their offices, should respectively take and subscribe the customary oaths or affirmations of allegiance to the King of Great Britain. The first commencement of the College took place on the 17th of May, 1757, when seven young men received its honors. Of the Medical Department, we read that the 3d of May, 1765, was the birthday in America of a system of medical education, as Dr. John Morgan was appointed Professor of the Theory and Practice of Physic; and that the first medical commencement was held on the 21st of June, 1768, when ten gentlemen received their Bachelor's degree. A most interesting chapter is devoted to the finances of the College, as we find that, besides the various benefactions, etc., the sermons of the celebrated Whitefield, as well as lotteries, were most productive. But the troubles of the Revolutionary war sadly impeded the success, at this period, of the institution; for the income, as well as the receipts, fell so low that a pretext was afforded the legislature to interfere in its concerns. The schools were indeed closed in June, 1777, and, although reopened the following year, violent political excitement prevailed, and the charter was abrogated by the legislature of Pennsylvania, which from that time took the College into favor, conferring upon it the new and more lofty title of University of Pennsylvania. In the spring of 1802 the schools were removed to the buildings on Ninth Street. In chapter xiv. will be found an account of the several departments for the year 1827, where we lay down the book with a sincere regret that, by reason of failing energies, Dr. Wood felt compelled to relinquish an evident design of bringing his narrative down to the present times, which are so likely to constitute an important era in the history of the school. Still, Joseph Carson, M.D., now Professor of Materia Medica and Pharmacy in the University, has given us a History of the Medical Department; and we feel assured that an able chronicler of the Department of Arts will arise, who, taking up the record, will also be duly grateful for so faithful a research by Dr. Wood.

The second historical memoir is devoted to a History of the Pennsylvania Hospital; being an address delivered June 10, 1851, on the occasion of the centennial celebration of the founding of the hospital.

BOOKS AND PAMPHLETS RECEIVED.

A Year-Book of Therapeutics, Pharmacy, and Allied Sciences. Edited by Horatio C. Wood, Jr., M.D., Professor of Medical Botany, University of Pennsylvania. 8vo, pp. 360. New York, William Wood & Co., 1872.

GLEANINGS FROM OUR EXCHANGES.

DEXTRAL PRE-EMINENCE.—Dr. William Ogle contributes to the last volume of the *Medico-Chirurgical Transactions* a valuable paper on this subject. The following abstract is taken from *The American Journal of the Medical Sciences* for July:

"After briefly reviewing the literature of the subject, Dr. Ogle gives his reasons for believing that right-handedness depends on some predominance of the left brain, and left-handedness, when it occurs, on a transposition of this structural peculiarity, whatever it may be. If the two hemispheres be compared, the left will be found a little larger, and in the frontal lobes especially the left convolutions will be observed to be much more complicated. In the few instances in which he has had the opportunity of examining the brains of left-handed persons, the reverse of this has been found to be the case. The brains of monkeys possess the same peculiarities, and Dr. Ogle has satisfied himself, by careful observation at the London Zoological Gardens, that the majority of monkeys are right-handed, and that a very small proportion (only three out of twenty-three) are left-handed. The parrot, too, will use its right leg to support itself in preference to its left. Thus, of eighty-six parrots, sixty-three invariably supported themselves on the right leg, while the remaining twenty-three as invariably perched on the left one.

"It might be objected to Dr. Ogle's view, that the greater development of the left brain may be the consequence of the increased use of the right side, and not its cause. But this disparity between the two hemispheres exists in fœtal life, and Gratiolet has asserted that the convolution of the left frontal lobe appears earlier than the corresponding convolution of the right. Besides which, it is clear that some anatomical difference between the two sides must precede the right-handedness; and this difference must be somewhere in the brain, for the author shows very conclusively, in the first part of his paper, that it cannot be referred to a conventional agreement made between the members of a community, and handed down by educational influence from parent to child through successive generations. In a former paper he has expressed an opinion that the cause of the greater development of the left hemisphere is to be found in the difference of the blood-supply to the two sides of the brain; and to this opinion he is disposed to adhere. He has found that the arteries which convey blood to the brain are, as a rule, somewhat larger on the left side than on the right, and that this rule apparently breaks down in the case of left-handed men. This increased size of the arteries of the left side, he thinks, cannot be regarded as a consequence of the increased use of the hemisphere to which they go, since the left vertebral artery is generally larger than the right; and yet, from their uniting to form the basilar artery, they must be precisely alike so far as the *vis a fronte* goes. The course of the left carotid artery is, moreover, much less tortuous than that of the right; and this will, of course, secure a more liberal supply of blood to the corresponding hemisphere. In monkeys which have been shown to be the subjects of dextral pre-eminence, the arterial branchings appear to accord with those of man. 'But in parrots,' he says, 'I find a striking corroboration of my hypothesis. In these birds there is very great variability in the arrangement of the right and left carotid arteries. In some few the two are of equal size; but this is the exception. In the great majority the arteries are unequal; and when this is the case, it is invariably the left carotid which is the larger, as Meckel, years ago, pointed out. Sometimes, indeed, it would appear that the right carotid is rudimentary, or even entirely absent, and that the brain receives its whole blood-supply from the vessels on the left. It is difficult to suppose that this is a mere coincidence; but, if it be anything more, it renders the explanation I have advanced in the highest degree probable.'

"In favor of Dr. Ogle's view is the fact that in left-handed people paralysis of the left side is accompanied by loss of speech, which may be regarded as an indication that the left side of the brain is more developed in their bodies than the right."

THE CONNECTION BETWEEN PULMONARY HEMORRHAGE AND PHTHISIS.—In a valuable paper contributed by Dr. Julius Sommerbrodt, of Breslau, to the June number of *Virchow's Archives*, the question whether the extravasation of blood into the air-cells of the lungs is ever the cause of consumption is very fully discussed. Numerous experiments were made by injecting blood taken from their own bodies into the tracheæ of dogs, the animals being killed at periods of time varying from one hour to twelve days after the operation. In those soonest killed the blood was found to have penetrated into different parts of the lungs, but was accumulated in greatest quantity near their roots. At the end of the first day the injected patch could be readily distinguished from the other portions of the lung by a well-defined difference in color, which, however, became fainter on the third day, and generally ceased to exist on the eighth day. In no case were fibrinous coagula found obstructing the bronchial tubes. In dogs killed in from two to three hours after the experiment, the microscope showed the presence in the alveoli, containing blood, of some pale cells, two or three times as large as the blood-corpuscles, and having a nucleus and opaque somewhat granular contents. Twenty-four hours later, these cells, which varied in size from 0.006 to 0.015 mm., had become more numerous; their nucleus was less distinct, and their contents were more opaque. The cells continued to increase in number until the fifth day, when they also attained their maximum size (0.021 to 0.024 mm.). Occasionally Dr. Sommerbrodt has discovered within them corpuscular elements, which he has no doubt are blood-corpuscles, not only because they resemble the corpuscles, lying free in the alveoli, but also because they are not stained by carmine as are the nucleus and nucleolus. He thinks, therefore, that they have penetrated into these cells. In animals killed after the seventh day, the cells were found to have become less round, to have a tendency to become crenated and more opaque, and to decrease in numbers. Dr. Sommerbrodt has no doubt that these cells take their origin from the walls of the alveoli, and has been able not only to trace the gradations from the healthy cell to those just described, but also to detect the points from which they have been thrown off. These appearances he attributes to catarrhal pneumonia, and he therefore asserts that blood is capable of exciting this form of inflammation; but, having never been able to discover thrombi in the minute bronchial tubes, he rejects the explanation of Niemeyer, believing that blood exercises a directly irritating effect upon the alveoli.

Even in the bodies of dogs who were allowed to live the longest there were no appearances of phthisis; and the experimenter calls attention to the fact that none but healthy animals were used, and that in man hemorrhage from the lungs is not always followed by serious results. It is only in those who are predisposed to phthisis, or who are debilitated from any cause, that this is to be dreaded; for the products of the catarrhal pneumonia excited in them are very apt to undergo caseous degeneration.

THE INFLUENCE OF PHOSPHORUS UPON THE ORGANISM.—Dr. George Wegner has for some time past been studying the effects of phosphorus upon the organism, and in the last number of *Virchow's Archives* gives the results of his investigations. He has found that, in cases of acute poisoning by phosphorus, the walls of the minute arteries and veins undergo fatty degeneration, as well as the heart, liver, and other organs. This circumstance renders it easy to understand the occurrence of extravasation of blood into the tissues, and, if the patient be menstruating at the time, the excessive flow of blood from the uterus. To determine what were its effects upon the

system, various animals, such as dogs, cats, rabbits, and chickens, were submitted to its influence in various ways. To some it was given by the mouth; others were obliged to inhale its fumes constantly. He has come to the conclusion that it is capable of producing an irritation of the digestive apparatus, and of exciting an increased growth, especially in thickness, of the bones. Very minute doses appear to cause no derangement of the functions of the stomach. Pushed a little further, however, it gives rise to inflammation, ulceration, and, finally, in consequence of an increased growth of connective tissue, to thickening and induration of the mucous membrane. A similar hyperplasia of the connective tissue of the liver, together with some fatty degeneration of its cells, is observed.

The same disease of the jaw, as in man, occurs in a certain number of animals exposed to the vapors of phosphorus; but inasmuch as this has never been seen in animals to which the poison was administered only internally, and since it always takes place in those in which the operation of excising a portion of the mucous membrane covering the jaw has been performed, and will be produced in any part of the body where the periosteum has been laid bare and exposed to these vapors, Dr. Wegner is inclined to look upon it as a direct rather than a constitutional effect upon the periosteum, giving rise to periostitis, the deposit of bone, and, in severe cases, caries, and to infiltration of the surrounding tissues. The tendency to increased growth of the bones is, on the contrary, a systemic effect. The growth is principally in thickness, and takes place at the expense of the medullary canal of the long bones, as well as of that of the Haversian canals; and this is produced by doses which do not give rise to irritation of the stomach and bowels. The new bone has been analyzed, and found not to differ materially in chemical composition from the bone of healthy animals.

In regard to the therapeutic uses of phosphorus, Dr. Wegner thinks it indicated in the treatment of osteomalacia, rachitis, ununited fractures, resections, and in transplantations of the periosteum, and takes occasion to remark that it will be found to have, like many other substances which are used as poisons, different effects in different doses.

CAUSE OF UTERINE MOVEMENTS.—A short paper of considerable interest to gynæcologists, by Drs. Aser and Schlesinger, appeared in No. 52 of the *Centralblatt* for 1871 (*The British Medical Journal*, June 22, 1872). From numerous experiments, chiefly made on pregnant rabbits, in which the uterus was generally at rest when they began their observations, they discovered that whenever the blood which circulated through the brain or through the uterus itself became extremely venous, tetanic contraction of the uterus took place. As is well known, the blood which is contained in the vessels of any part of the body may be rendered venous in several ways. It may be done by stopping the respiration, so that fresh air is prevented from reaching the blood in the lungs, in which case the blood becomes venous throughout the whole body. Or the same effect may be produced by arresting the circulation in a part by tying either the arteries going to it, or the veins returning from it, when the blood stagnates in the vessels, and becomes completely venous; so that this part of the body is, as it were, suffocated, while the rest of the body is well supplied with arterial blood. A third way of producing this condition is by bleeding profusely, so that too little blood is left in the body to keep up the circulation. Accordingly, the authors found that when respiration was stopped in curarized rabbits violent contractions occurred in from ten to thirty seconds afterwards. This was due to the venous blood irritating the brain; and the same effect could be produced by cutting off its supply of blood through ligature of the innominate and the left carotid and subclavian arteries. Bleeding the animal nearly to death acted still more rapidly, and produced tetanic contractions of the uterus in between five and fifteen seconds. The irritation of the brain which produced uterine contractions was conducted down the spinal cord to the uterus, and when the cord was divided irritation of the brain in any of the ways just mentioned produced no effect. Stagnation of the blood in the uterus, produced by compression of the aorta, caused uterine movements of the same tetanic character, but which did not begin till the compression had been kept up from seventy to one hundred seconds, and were occasionally rather weaker than those which originated in irritation of the brain. If spontaneous movements of the uterus were present, they soon ceased after compression of the aorta was begun; and when the arterial blood was again allowed to circulate through the organ by removing the compression, a strong contraction of the entire uterus, quickly followed by rest, took place.

THE ACTION OF PEPSIN ON BLOOD-FIBRIN.—Dr. V. Willich contributes a long paper to Pflüger's *Archiv* (*The Lancet*, May 25, 1872) on the ferments effecting the digestion of fibrin. The digestive fluid he employed was the fresh glycerine extract of the minced mucous membrane of the stomach of the pig. The fibrin was obtained from fresh blood. This was macerated in a solution of hydrochloric acid, containing 0.2 per cent. From the results of his experiments it appears that fibrin absorbs pepsin very energetically; that the process of digestion commences with the formation of a feeble chemical combination between the pepsin and the acid, and that this compound is the really active substance. In regard to temperature, digestion proceeds slowly, even at 40° Fahr., but with the greatest rapidity and energy at temperatures between 95° and 112° Fahr. Higher temperatures than this retarded or altogether prevented the action. For the digestion of a certain quantity of fibrin, definite quantities both of acid and of pepsin are requisite. Meissner's parapeptones and metapeptones are initiatory stages of the action of pepsin on fibrin, and, if the action proceeds, are converted into peptone; but if the amount of pepsin be insufficient, they may remain unaltered.

THE TREATMENT OF INTERMITTENT FEVER BY SMALL DOSES OF IPECACUANHA.—Udhoy Chand Dutt, the civil medical officer at Noakhally, reports, in *The Indian Medical Gazette* for June, the results of the treatment in seventy-six cases of intermittent fever by small doses of ipecac. In seventy-four cases a cure was effected by it alone, and in two instances only it failed, rendering necessary the subsequent administration of quinia. He says, "I commenced the treatment with a dose of opening medicine,—castor oil or kaladana,—and then administered ipecacuanha wine 1 drop, or ♏ ½, or the powder, gr. $\frac{1}{20}$, every two hours, for six doses, during the day. If the fever is strong and the patient weakly, rum and ammonia mixture is given during the exacerbation, otherwise no medicine is prescribed for the hot stage; but ipecacuanha is given throughout, irrespective of the stages. Thus administered, it gradually reduces the strength and duration of the paroxysms, and cures the disease in from three to five days." He is satisfied that the antiperiodic powers of ipecac must be ranked as second only to those of quinia.

FIBROUS ENLARGEMENT OF THE UTERUS SUCCESSFULLY TREATED BY ERGOT.—Dr. Brunton reports a case of this kind to the London Obstetrical Society (*The American Journal of the Medical Sciences*, July). The patient was a single woman of 47. The uterus when first examined reached to a point midway between the pubes and umbilicus. The menses were excessive, and recurred every two weeks. She was treated with the bromide of potassium and with the external application of iodine, but with no benefit. She afterwards took digitalis, morphia, cannabis indica, and ergot. The hemorrhage becoming alarming, and the uterus reaching as high as the umbilicus, the ergot was administered in large doses, as much as from one to two ounces being given at each period, with controlling effect. The uterus began to diminish in size under this treatment, and in six or seven months could not be felt above the pelvis, and no enlargement could be detected when it was examined through the rectum. She is reported to have taken from forty to fifty ounces of ergot in six months. At last report the catamenia were still frequent and excessive, but under control by ergot and morphia.

VERATRIA AS A PARASITICIDE.—Dr. Eugène Peugnet recommends, in *The American Journal of Syphilography and Dermatology* for July, the application of the following lotion in cases of tinea versicolor, favus, and aspergillus: ℞—Veratriæ (sabadillæ), gr. iij; acidi acet. dil., ♏ x; aq. rosæ, glycerinæ, āā ℥ss. M. The tinctures of veratrum viride and veratrum album also possess parasiticide properties.

COLD ALCOHOLIC TEST FOR ALBUMEN.—Dr. C. R. Drysdale reports from the Metropolitan Free Hospital (*The Boston Medical and Surgical Journal*, June 27; from *The Medical Press and Circular*) that he has tried the cold alcohol test for albumen recommended by Dr. Betz (*Memorabilien*, 1872), and that it has proved trustworthy in the cases tried by him. Dr. Betz remarks that boiling the urine is not always a sufficient plan when examinations are made in private practice, because albumen is not always thrown down by boiling. Also nitric acid is not certain in all cases. He mentions that a trustworthy and very easily obtained reagent is ordinary spirit as bought in shops. A portion of the urine is poured into a glass, and over it about an equal quantity of spirit, without allowing the two liquids to mingle. When albumen is present, the alcohol has a milky haze at the junction, and occasionally there are small nipples of albumen seen in the alcohol when the urine is very full of it. This process is so simple that it can always be made use of. According to Dr. Betz, this test will frequently show albumen when we are not inclined to think it exists on account of the absence of œdema, heaviness of the body (which is seen in children), foaming of the urine on micturition, scarlatina, or pneumonia. Dr. Drysdale has found the reaction in four cases of chronic albuminuria now under his care at the hospital.

TREATMENT OF ULCERS OF THE LEG.—Mr. W. E. C. Nourse, of Brighton, reports, in *The British Medical Journal* for June 29, that he has treated nearly five hundred cases of ulcerated legs during the last thirteen years, and that the results of his treatment have been neither unsatisfactory nor disheartening, having met with only ten or fifteen failures out of the whole number. The plan of treatment has been the application of uniform pressure with strapping, bandages, etc.; the sparing use of ointments or lotions, of stimulants to the ulcers, and of internal medicines, and the unsparing use of pains and trouble to do the work properly; the non-disturbance of the healing process by frequent dressings, the wounds being only uncovered once, or at most twice, a week; the recognition of a low vitality as a common cause in most of these cases, involving more or less destruction of tissues; and the consequent strict avoidance of mercury, strong or frequent cathartics, and all forms of depressing medicines, and the allowing to the patient his ordinary diet and mode of living, cutting off only whatever seemed excessive or positively injurious, and the removal from the limb of all ligatures, or anything likely to obstruct the circulation, also of irritant or injurious applications.

CEREBRAL DISEASE OF SYPHILITIC ORIGIN.—Dr. G. Owen Rees (*Guy's Hospital Reports*, vol. xvii.; from *The American Journal of the Medical Sciences*, July, 1872) thinks that cerebral disease of syphilitic origin may generally be recognized, even when the possibility of infection is denied by the patient, by attention to the following points: The paralytic seizure, when dependent upon syphilis, is generally the immediate result of some violent exertion, or of some long-continued muscular effort carried on to fatigue, and the collapse is often so great as to threaten immediate dissolution. The hemiplegic and paraplegic symptoms are peculiar in character, there being marked irregularity in loss of motor power, and of sensation as affecting opposite sides of the body. Pain in the head and tenderness of the scalp are scarcely ever wanting. Aphonia has been observed in many cases in the early stage. Whenever these symptoms are presented by a patient, the writer of the paper thinks a course of mercurial treatment should be at once begun.

TYROSIN IN THE SPUTA.—Professor Leyden (*Virchow's Archives*, June 13) found crystals of tyrosin in the sputa of a patient with chronic bronchitis, and probably dilatation of the bronchi. In this case he thinks it probable that the albuminous constituents of the secretion, instead of undergoing a usual form of decomposition, had become converted into tyrosin.

RETARDATION OF THE MOTOR IMPULSE.—In two cases reported in *Virchow's Archives*, June 13, Professor Leyden, of Königsberg, thought, from a consideration of the other symptoms, that the retardation of the motor impulse, which was considerable, depended upon disease of the pons or of the medulla oblongata.

EFFECTS OF THE CIRCULATION IN THE LUNGS IN DISTENDING THE AIR-VESICLES.—In the Gulstonian Lectures delivered by Dr. Hensley (*The British Medical Journal*, June 22), he advanced the hypothesis that one cause of the alteration of the air-vesicles from a state of collapse in the lungs of the fœtus to a state of distention in the lungs of the newly-born child, was that the blood, forcibly propelled by the heart through the capillaries of the lungs, tended to straighten them out, and thus to open out the air-vesicles round which they are placed, and which, in the fœtal condition, are folded up like the petals of an unopened flower-bud. The effect of the circulation in doing this has actually been investigated by Liebermann (*Wien. Med. Zeit.*, No. 5, 1872), who constructed an apparatus to imitate the air-vesicles by placing one ox-bladder within another and then sewing them together in such a manner as to leave a network of tubes which represented the pulmonary capillaries, and which terminated in two openings, in which tubes corresponding to the pulmonary artery and vein were placed. The tube corresponding to the pulmonary artery was connected with another bladder filled with oil which represented the heart; and the inner bladder was tied on to a glass tube which represented the trachea. The bladder which represented the air-vesicle was then placed so as to empty them of air; and, when in a collapsed condition, the one filled with oil was squeezed so as to force the oil into the network of tubular spaces left by the rows of stitches. After a squeeze or two, these schematic capillaries became full; and at the same time the collapsed walls of the bladders opened out, and air rushed in through the glass trachea to fill up the interior, with a distinct murmur. Liebermann thinks that this action of the capillaries counteracts the strongest expiratory efforts, and is the reason why the lungs contain air during the deepest expiration.

CALABAR BEAN IN TETANUS.—At a meeting of the Société de Biologie in Paris (*The British Medical Journal*, June 22), M. Laborde referred to a case of tetanus in which he had given Calabar bean, and where extreme contraction of the pupils was produced. A gramme of the extract had been given. M. Leven called attention to the fact that toxic symptoms had been produced in several instances where Calabar bean had been given for the treatment of tetanus. There did not appear, he said, to be a single case of recovery from traumatic tetanus under the use of eserine,—the active principle of the Calabar bean. Recovery from spontaneous tetanus, on the other hand, frequently took place under any treatment.

THE INFLUENCE OF PRESSURE ON FERMENTATION.—Mr. H. T. Brown (*The Academy*, June) has found that during alcoholic fermentation other gases besides carbonic anhydride are invariably given off. When malt ferments, he finds the gas unabsorbed by potash to be about $\frac{1}{1000}$ of the total gas evolved. When fermentation takes place under reduced atmospheric pressure, the proportion of evolved gas not absorbed by potash is found to be considerably augmented, the increase being mainly due to hydrogen; and the oxidation products, acetic acid and aldehyde, are likewise more abundant in the fermented liquid. The author considers that water is decomposed during fermentation, dissociation of the water-molecules being favored by decrease of atmospheric pressure.

VACCINATION AS A CURE FOR SMALLPOX.—Dr. Grieve, of the Hampstead Smallpox Hospital (*The Boston Medical and Surgical Journal*, July 4), has put the curative power of vaccine lymph to the test in the way recommended by Mr. Furley, viz., by injecting large quantities under the skin. Seven cases were treated in this manner. The results were not at all satisfactory. Two men suffered severely from the local effects of the hypodermic injection of lymph, and the treatment employed did not produce the least ameliorating effect on the disease in any of the cases. One of them, in fact, died of malignant smallpox.

PREDICTION OF THE SEX OF THE CHILD IN UTERO.—Dr. T. J. Hutton says (*New York Medical Journal*, July) that when the fœtal pulsations number 144 per minute, the child is a female; when 124, it is a male. He gives the record of seven cases, the only ones in which he has had the opportunity of testing this rule, and in which it was the sole guide. The prediction in every instance proved to be correct.

MISCELLANY.

PHILADELPHIA PHYSICIANS ABROAD.—The following distinguished ophthalmologists have gone from this city to England to attend the ophthalmological congress: Drs. E. Dyer, William F. Norris, and William Thomson. In addition to these, Drs. J. M. DaCosta, S. D. Gross, D. Hayes Agnew, Francis W. Lewis, O. A. Judson, James Tyson, and Charles T. Hunter are spending the summer in Europe, either in travel or in study.

HABITUAL DRUNKARDS.—*The British Medical Journal* for June 29 contains the report of the select committee of the English House of Commons appointed to inquire into the best plan for the control and management of habitual drunkards, from which we make the following extracts:

"In view of the absolute inadequacy of existing laws to check drunkenness, whether casual or constant, and in view of the fact that drunkenness is the prolific parent of crime, disease, and poverty, the committee recommend 'that sanatoria, or reformatories for those who, notwithstanding the plainest considerations of health, interest, and duty, are given over to habits of intemperance so as to render them unable to control themselves, and incapable of managing their own affairs, or such as to render them in any way dangerous to themselves or others, should be provided. These should be divided into classes A and B: A for those who are able, out of their own resources or out of those of their relations, to pay for the cost of their residence therein. These, whether promoted by private enterprise or by associations, can be profitably and successfully conducted. B, for those who are unable to contribute, or only partially. These must be established by state or local authorities, and at first at their cost; though there is good reason to believe that they can be made wholly or partially self-supporting.

"The admission to these institutions should be either voluntary or by committal. In either case, the persons entering should not be allowed to leave, except under conditions to be laid down; and the power to prevent their leaving should be by law conferred on the manager.

"The patients should be admitted either by their own act, or on application of their friends or relatives, under proper legal restrictions; or by the decision of a local court of inquiry, whenever proof shall be given that the party cited is unable to control himself, and incapable of managing his affairs, or that his habits are such as to render him dangerous to himself or others."

The committee further recommend that the fine for drunkenness, for the first or second offence (when it is most desirable to prevent the formation of the habit) should not exceed forty shillings, or, in default thereof, imprisonment for a period not exceeding thirty days. "It is in evidence," the committee say, "as well from those who have conducted and are still conducting reformatories for inebriates in Great Britain, as by those who are managers of similar institutions in America, that 'sanatoria,' or inebriate reformatories, are producing considerable good in effecting amendment and cures in those who have been treated in them." The average number of cures is stated to be from thirty-three to forty per cent. of the admissions,—this percentage being based upon subsequent inquiry, from which the cures appear to be as complete and permanent as in any other form of disease, mental or physical. The average time occupied in effecting these cures is stated at from twelve to sixteen weeks in America. For the English institutions the period has been longer. That the proportion of cures is not larger is attributed by all the witnesses to a lack of power to induce or compel the patient to submit to treatment for a longer period; and that power is asked for by every one who has had, or still has, charge of these institutions.

RINGING THE DOCTOR'S BELL.—*The Medical Times and Gazette* of June 8 says, "Some time since, we published the case of a boy whose tooth had been extracted by a surgeon who had been annoyed by the young scapegrace pulling his bell as 'a lark.' An action was brought against the surgeon, and he had to pay damages. We have now to record a case somewhat similar, and in which the doctor was again made defendant in an action. At Burnley, last week, Dr. Dean, a member of the Town Council, and in large practice, was charged with unlawfully, maliciously, and feloniously applying a certain corrosive to the forehead of Louis Calverly, with intent to disfigure, etc. It appeared in evidence that about a fortnight since the boy went to the doctor's house to examine the bell-handle, which is in the shape of a closed fist. The bell rang; the defendant came out. He took the boy into the surgery, and wrote the word 'Bell' on his forehead with caustic. The legal advisers on either side had a long consultation, the result of which was the withdrawal of the summons on the defendant making an apology and paying costs. Undoubtedly in the two cases the defendants went far beyond the mark in the punishment they inflicted; but we believe no magistrate would convict a surgeon of an offence if he gave the runaway ringer a good horsewhipping. However, all things considered, we advise our brethren on no occasion to take the law into their own hands. Magistrates deal sharply with the silly and offensive people who ring doctors' bells for amusement. Only last week, Mr. May, an undergraduate of Trinity College, Cambridge, was charged at the police-court with ringing Dr. Ransome's bell in Jesus-lane, and, notwithstanding an offer to apologize and a good character from his college tutor, he was fined 40*s.* and costs."

HOW HOMŒOPATHIC CONVERTS ARE MADE.—The following amusing account of a conversion to homœopathy is taken from *The Boston Medical and Surgical Journal* of July 4:

"Prof. Henderson, of Edinburgh, avowedly one of the leaders of homœopathy in Scotland, and before his adoption of the new practice a physician to the Edinburgh Infirmary and a Professor in the University, owed his medical conversion, it is said, to a curious incident. The story is attributed to the late Sir James Simpson. Dr. Henderson had been induced by Abercrombie to investigate the subject of homœopathy, and he made certain researches which he mentioned in public as having struck him. Simpson, some time before that, had received from a well-known homœopathic chemist a case containing a set of phials filled with globules, which he had never used. These, he said, he should be glad to hand over to Henderson, and the latter with pleasure accepted them. He used them, and was so struck with their effects that he declared himself convinced of the truth of the homœopathic doctrines. Unfortunately, it turned out too late that he had unwittingly deceived himself; for the case with its phials had long been a plaything for Simpson's children, who used to empty out the little globules into heaps and fill the phials from these indiscriminately. It need hardly be said that this was not known to Simpson when he gave Henderson the case; but it became known to him afterwards, and he made

Henderson aware of it. But Henderson had gone too far to recede, even if he had desired to do so, and he became a declared practitioner of homœopathy."

POST-MORTEM DELIVERY.—Under this heading *The Indian Medical Gazette* for June contains the following interesting communication:

"The *Medical Press and Circular* of April 3 contains two letters by Drs. Swayne, of Carrick-on-Shannon, and Lanigan, of Ballymahon, describing two instances of post-mortem expulsion of the fœtus through the agency of gaseous distention of abdomen. Dr. Swayne states that he 'never heard or read of a similar instance.' We suspect that the incident is not an uncommon one in Indian medico-legal practice. We can recall at least one instance of such an occurrence. The body of a pregnant woman is dispatched from a distant part of a district, and wrapped up rather loosely in a coarse cloth and bamboo matting. On arrival at the sudder station the civil surgeon finds it semi-putrid, eyes bursting, limbs widely apart, and abdomen swollen and hard as a drum. On removing the coverings, a fœtus is found between the thighs, and the uterus not unfrequently prolapsed, while the bystanders declare that when the body was started nothing of the kind was observed. Dr. J. H. Aveling gives notes in *The Lancet* of April 27 of six instances of post-mortem delivery. In five of these the delivery took place after the women had been committed to their coffins and graves. These examples are drawn from old records, but they have an air of circumstantiality and truth about them. In one instance the infant was extracted alive from the coffin. It would be very interesting and medico-legally important to find, as we have hinted is probable, that what is considered in England a curious and rare phenom enon is in India a common and familiar circumstance. In *The Indian Medical Gazette* for August, 1867, Dr. R. F. Hutchinson, then civil surgeon of Patna, has recorded a good case of post-mortem parturition which he considered unique. The medico-legal relations of effects produced by putrefaction can perhaps be better studied in India than in any other country in the world; because the conditions causing it are ever present in varying degrees, and the instances of changes of all kinds and degrees due to the influence of the heat and moisture abound. We have seen the viscera of the abdomen occupying the cavity of the thorax, into which they had been thrust through a rent in the diaphragm, of whose post-mortem causation there could be no reasonable doubt."

MAIMING ESTABLISHMENTS, it is reported, have recently been discovered by the police in London. As beggars afflicted with deformities reap a rich harvest from the compassionate public, parents are to be found who will deliberately hand over their children to be tortured for the sake of making money out of their deformities. This demand for distorted faces and twisted arms and legs has caused the establishment of this manufactory of deformities, and the proprietors, it is stated, have a curiously-graduated scale of charges. Thus, while a charge of seven dollars was made for twisting the leg of an infant under a year old, ten dollars were demanded for performing the same operation upon a child eighteen months old. This cruel and unnatural profession of child-maiming receives its principal support from misjudging persons who encourage begging by the indiscriminate giving of alms.

BURN BRAE.—On Thursday, June 27, by invitation of Dr. R. A. Given, a number of the medical men of Philadelphia visited and carefully inspected the institution known as *The Burn Brae*, a private hospital for mental affections, situated near the West Chester Railroad, about seven miles from our city.

The guests were handsomely entertained by Dr. Given, and afterwards assembled in the beautiful grove fronting the institution. Here, true to the American fashion, they organized a meeting, by calling on Dr. Washington L. Atlee to act as Chairman, and Dr. Wm. B. Atkinson as Secretary.

After speeches by Dr. J. L. Ludlow and others, a committee was appointed, consisting of Drs. T. G. Morton, J. J. Reese, and W. W. Keen, to prepare a resolution expressive of the sense of the meeting.

The committee offered the following, which was unanimously adopted:

Resolved, That we have derived much gratification from our inspection of Burn Brae, the beautiful and commodious establishment of our friend and professional brother, Dr. Given, and we believe it to be eminently adapted to the treatment of the class of patients for which it is intended; and we do cordially recommend the institution as a most desirable residence for those suffering from mental affections.

Dr. Reese then offered the following, which was also adopted:

Resolved, That we entertain a most grateful and appreciative sense of the very elegant entertainment by our genial host, Dr. Given, and we offer him our acknowledgments for the same.

GOOD FORTUNE OF THE MASSACHUSETTS GENERAL HOSPITAL.—A few days ago the Treasurer of the Massachusetts General Hospital receipted for the large sum of $446,000, which was paid to him as the result of a provision of the will of the late John Redman. Mr. Redman died some twenty years since, leaving a will by which the hospital was made the residuary legatee of his estate upon the death of a son who had a life-interest in it. The advance in both real and personal estate since that time has increased the value of the legacy from the $50,000, which the trustees of the institution once expected to receive, to nearly half a million.

The late Quincy Tufts, of Boston, leaves by his will ten thousand dollars to this hospital.

PROPOSED FRENCH LAW AGAINST DRUNKENNESS.—A bill which has been laid before the members of the French National Assembly (*The Medical Record*, July 1), and has been reserved for discussion, provides:

1. Those persons found in a state of manifest drunkenness in the streets, alehouses, or other public places, shall be liable to a fine of from one to five francs.

2. Such persons as shall have undergone, in less than three years, two condemnations under the preceding clause, shall be liable to imprisonment for from six days to a month, and to a penalty of from six to three hundred francs.

3. Every person who shall have been condemned for manifest drunkenness, according to the second clause, shall be declared incapable—first, of using the franchise; second, of being elected as member; third, of being nominated for any public appointment, or exercising any public office; fourth, of bearing arms for the space of two years from the date of condemnation.

4. All electors or jurymen so appearing shall be similarly punished.

5. Keepers of cafés who allow their customers to drink to excess are to be punished.

USE OF ANTISEPTICS IN EGYPTIAN SURGERY.—A correspondent of *The Medical Times* asserts that the first instance of the use of an antiseptic as such in surgery was the case of St. Syntellectica, an Egyptian Christian lady of the second century, of whom an account is preserved in the "Lives of the Saints," and whose "day" is observed in January. This lady, whose life was devoted to the good of the poor, died of cancer of the face, which was attended with so odious a smell that she used to have the ulcer bathed with the *liquid which was used to mummify dead bodies*, in order that those about her might not suffer from it.

AT a recent *levée*, Prof. Samuel D. Gross, of this city, was presented to the Prince of Wales.

PROFESSOR T. G. RICHARDSON has been transferred from the Chair of Anatomy in the University of Louisiana to that of Surgery in the same institution, made vacant by the retirement of Professor Stone; and Professor Samuel Logan, formerly of the New Orleans School of Medicine, has been appointed Professor of Anatomy.

PROF. WILLLAM WARREN GREENE, of the Bowdoin Medical College, Maine, has accepted the chair of Principles and Practice of Surgery and Clinical Surgery in the Long Island College Hospital, Brooklyn, N. Y.

DR. THOMAS H. KEARNEY has been appointed Professor of Surgery in the Miami Medical College, in the place of the late Professor Foote.

M. SÉDILLOT has been elected a member of the Academy of Sciences in Paris, in the place made vacant by the death of M. Laugier.

PROFESSORS BILLROTH and BRÜCKE, of the Vienna School of Medicine, have been offered chairs in the University of Strasbourg, but prefer to remain in Vienna.

DR. R. M. HODGES has resigned his position as Adjunct Professor of Surgery and Clinical Surgery at the Harvard Medical School.

DR. JULIUS NICOLAYSEN, of Christiania, Norway, has been appointed to the Professorship of Surgery in the University of Christiania.

OF four hundred students at the University of Zurich, eighty are ladies, a large proportion of whom are pursuing the study of medicine. Many of the ladies are of Russian birth, and have sought, in the republican seat of learning, the education which they are at present unable conveniently to obtain at home.

L'Imparziale, in briefly noticing two recent successful cases of ovariotomy in Italy,—one in the practice of Dr. Ruggi, of Bologna, and the other in that of Dr. Marzolo, of Pavia,—states that the operation has now been performed twenty times in that country, and that the number of recoveries has been five.

LARGE FEES.—Two medical witnesses from America, before the Habitual Drunkards' Committee of the English House of Commons, have received the sums of £283 13*s.* and £261 18*s.* for their expenses. The payments have been the subject of conversation in the House.

CHOLERA.—This disease continues to prevail in the Northwestern provinces of India. From April 15 to May 15 it was the cause of 13,144 deaths in eight districts.

THE MORTALITY FROM THE HEAT.—Another heavy death-list is reported by the Board of Health for the week ending on Saturday, July 13, at noon. A part of this mortality is undoubtedly due to the severe heat of the previous week, as the list is made up from the report of interments, and not from the actual deaths. Besides which, the debility produced by the excessive heat must have been a cause of death for several days after the temperature had slightly moderated.

Of the whole number of deaths, 525 occurred in children under five years of age, 497 in infants under two years, and 383 in infants under one year. Cholera infantum was the cause of 310 deaths, and sunstroke of 72. The number of deaths reported in New York for the same week was 1057. The diminution in the number of deaths for the week ending July 20 is very manifestly the effect of the fall in temperature.

MORTALITY FROM SMALLPOX.—The number of deaths from smallpox in Philadelphia reported for the weeks ending July 13 and 20, 1872, were respectively 15 and 6, of which 17 were of minors.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending July 13.	July 20.
Consumption	39	42
Other Diseases of Respiratory Organs	21	20
Diseases of Organs of Circulation	24	12
Diseases of Brain and Nervous System	136	70
Diseases of the Digestive Organs	384	268
Diseases of the Genito-Urinary Organs	4	2
Zymotic Diseases	37	23
Cancer	8	4
Casualties	9	17
Debility	74	76
Intemperance	6	1
Murder	0	1
Old Age	29	14
Scrofula	2	1
Stillborn	17	16
Suicide	3	1
Sunstroke	71	10
Syphilis	1	0
Tetanus	0	1
Tumors	2	1
Unclassifiable	15	5
Unknown	3	2
Totals	885	587
Adults	329	172
Minors	556	415

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM JULY 4, 1872, TO JULY 18, 1872, INCLUSIVE.

SIMONS, JNO., SURGEON.—By S. O. 20, Department of the Gulf, July 5, 1872, to relieve Surgeon Randolph as Medical Director of this Department, the latter to comply with S. O. 148, c. s., War Department.

EDWARDS, L. A., SURGEON.—By S. O. 155, War Department, A. G. O., July 6, 1872, his present leave of absence extended sixty days.

PAGE, CHARLES, SURGEON.—By S. O. 111, Department of the Platte, July 2, 1872, assigned to duty as Post Surgeon at Fort D. A. Russell, Wyoming Territory.

VOLLUM, E. P., SURGEON.—By S. O. 113, Department of the Platte, July 6, 1872, granted leave of absence for twenty days.

WHITEHEAD, W. E., ASSISTANT-SURGEON.—By S. O. 117, Department of Texas, July 6, 1872, assigned to duty at Fort Brown, Texas, as Post Surgeon.

GIRARD, A. C., ASSISTANT-SURGEON.—By S. O. 117, c. s., Department of Texas, assigned to duty as Post Surgeon at Ringgold Barracks, Texas.

DICKSON, JOHN, ASSISTANT-SURGEON.—By S. O. 109, Department of the Platte, June 28, 1872, assigned to duty as Post Surgeon at Fort Fred. Steele, Wyoming Territory.